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[Report No. 110-337]

To direct the Administrator of the Environmental Protection Agency to establish a program to decrease emissions of greenhouse gases, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 18, 2007

Mr. LIEBERMAN (for himself, Mr. WARNER, Mr. HARKIN, Mr. COLEMAN, Mrs. DOLE, Ms. COLLINS, Mr. CARDIN, Ms. KLOBUCHAR, Mr. CASEY, Mr. NELSON of Florida, Mr. WYDEN, and Mr. SCHUMER) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

MAY 20, 2008

Reported by Mrs. BOXER, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italie*]

A BILL

To direct the Administrator of the Environmental Protection Agency to establish a program to decrease emissions of greenhouse gases, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) **SHORT TITLE.**—This Act may be cited as the
 3 “America’s Climate Security Act of 2007”.

4 (b) **TABLE OF CONTENTS.**—The table of contents of
 5 this Act is as follows:

Sec. 1. Short title; table of contents.
 Sec. 2. Findings.
 Sec. 3. Purposes.
 Sec. 4. Definitions.

TITLE I—CAPPING GREENHOUSE GAS EMISSIONS

Subtitle A—Tracking Emissions

Sec. 1101. Purpose.
 Sec. 1102. Definitions.
 Sec. 1103. Reporting requirements.
 Sec. 1104. Data quality and verification.
 Sec. 1105. Federal greenhouse gas registry.
 Sec. 1106. Enforcement.

Subtitle B—Reducing Emissions

Sec. 1201. Emission allowance account.
 Sec. 1202. Compliance obligation.
 Sec. 1203. Penalty for noncompliance.

TITLE II—MANAGING AND CONTAINING COSTS EFFICIENTLY

Subtitle A—Trading

Sec. 2101. Sale, exchange, and retirement of emission allowances.
 Sec. 2102. No restriction on transactions.
 Sec. 2103. Allowance transfer system.
 Sec. 2104. Allowance tracking system.

Subtitle B—Banking

Sec. 2201. Indication of calendar year.
 Sec. 2202. Effect of time.

Subtitle C—Borrowing

Sec. 2301. Regulations.
 Sec. 2302. Term.
 Sec. 2303. Repayment with interest.

Subtitle D—Offsets

Sec. 2401. Outreach initiative on revenue enhancement for agricultural pro-
 ducers.
 Sec. 2402. Establishment of domestic offset program.
 Sec. 2403. Eligible agricultural and forestry offset project types.

- Sec. 2404. Project initiation and approval.
- Sec. 2405. Offset verification and issuance of allowances for agricultural and forestry projects.
- Sec. 2406. Tracking of reversals for sequestration projects.
- Sec. 2407. Examinations.
- Sec. 2408. Timing and the provision of offset allowances.
- Sec. 2409. Offset registry.
- Sec. 2410. Environmental considerations.
- Sec. 2411. Program review.

Subtitle E—International Credits

- Sec. 2501. Use of international allowances or credits.
- Sec. 2502. Regulations.
- Sec. 2503. Facility certification.

Subtitle F—Carbon Market Efficiency Board

- Sec. 2601. Purposes.
- Sec. 2602. Establishment of Carbon Market Efficiency Board.
- Sec. 2603. Duties.
- Sec. 2604. Powers.
- Sec. 2605. Estimate of costs to economy of limiting greenhouse gas emissions.

TITLE III—ALLOCATING AND DISTRIBUTING ALLOWANCES

Subtitle A—Early Auctions

- Sec. 3101. Allocation for early auctions.

Subtitle B—Annual Auctions

- Sec. 3201. Allocation for annual auctions.

Subtitle C—Early Action

- Sec. 3301. Allocation.
- Sec. 3302. Distribution.

Subtitle D—States

- Sec. 3401. Allocation for energy savings.
- Sec. 3402. Allocation for States with programs that exceed Federal emission reduction targets.
- Sec. 3403. General allocation.

Subtitle E—Electricity Consumers

- Sec. 3501. Allocation.
- Sec. 3502. Distribution.
- Sec. 3503. Use.
- Sec. 3504. Reporting.

Subtitle F—Bonus Allowances for Carbon Capture and Geological Sequestration

- Sec. 3601. Allocation.
- Sec. 3602. Qualifying projects.
- Sec. 3603. Distribution.

Sec. 3604. 10-Year limit.
 Sec. 3605. Exhaustion of bonus allowance account.

Subtitle G—Domestic Agriculture and Forestry

Sec. 3701. Allocation.
 Sec. 3702. Agricultural and forestry greenhouse gas management research.
 Sec. 3703. Distribution.

Subtitle H—International Forest Protection

Sec. 3801. Findings.
 Sec. 3802. Definition of forest carbon activities.
 Sec. 3803. Allocation.
 Sec. 3804. Definition and eligibility requirements.
 Sec. 3805. International forest carbon activities.
 Sec. 3806. Reviews and discount.

Subtitle I—Covered Facilities

Sec. 3901. Allocation.
 Sec. 3902. Distribution system.
 Sec. 3903. Distributing emission allowances within the electric power sector.
 Sec. 3904. Distributing emission allowances within the industrial sector.

TITLE IV—AUCTIONS AND USES OF AUCTION PROCEEDS

Subtitle A—Funds

Sec. 4101. Establishment.
 Sec. 4102. Amounts in Funds.
 Sec. 4103. Transfers to Funds.

Subtitle B—Climate Change Credit Corporation

Sec. 4201. Establishment.
 Sec. 4202. Applicable laws.
 Sec. 4203. Board of directors.

Subtitle C—Auctions

Sec. 4301. Early auctions.
 Sec. 4302. Annual auctions.

Subtitle D—Energy Technology Deployment

Sec. 4401. In general.
 Sec. 4402. Zero- or low-carbon energy technologies deployment.
 Sec. 4403. Advanced coal and sequestration technologies program.
 Sec. 4404. Fuel from cellulosic biomass.
 Sec. 4405. Advanced technology vehicles manufacturing incentive program.

Subtitle E—Energy Consumers

Sec. 4501. Proportions of funding availability.
 Sec. 4502. Rural energy assistance program.

Subtitle F—Climate Change Worker Training Program

Sec. 4601. Funding.

Sec. 4602. Purposes.
 Sec. 4603. Establishment.
 Sec. 4604. Grants to States.
 Sec. 4605. Types of assistance.

Subtitle G—Adaptation Program for Natural Resources in United States and Territories

Sec. 4701. Definitions.
 Sec. 4702. Adaptation fund.

Subtitle H—Climate Change and National Security Program

Sec. 4801. Interagency Climate Change and National Security Council.
 Sec. 4802. Funding.

Subtitle I—Audits

Sec. 4901. Review and audit by Comptroller General of the United States.

TITLE V—ENERGY EFFICIENCY

Subtitle A—Appliance Efficiency

Sec. 5101. Residential boilers.
 Sec. 5102. Regional variations in heating or cooling standards.

Subtitle B—Building Efficiency

Sec. 5201. Updating State building energy efficiency codes.
 Sec. 5202. Conforming amendment.

TITLE VI—GLOBAL EFFORT TO REDUCE GREENHOUSE GAS EMISSIONS

Sec. 6001. Definitions.
 Sec. 6002. Purposes.
 Sec. 6003. International negotiations.
 Sec. 6004. Interagency review.
 Sec. 6005. Presidential determinations.
 Sec. 6006. International reserve allowance program.
 Sec. 6007. Adjustment of international reserve allowance requirements.

TITLE VII—REVIEWS

Sec. 7001. National Academy of Sciences Review.
 Sec. 7002. Transportation sector review.
 Sec. 7003. Adaptation review.

TITLE VIII—FRAMEWORK FOR GEOLOGICAL SEQUESTRATION OF CARBON DIOXIDE

Sec. 8001. National drinking water regulations.
 Sec. 8002. Assessment of geological storage capacity for carbon dioxide.
 Sec. 8003. Study of the feasibility relating to construction of pipelines and geological carbon dioxide sequestration activities.
 Sec. 8004. Liabilities for closed geological storage sites.

TITLE IX—MISCELLANEOUS

Sec. 9001: Paramount interest waiver.
 Sec. 9002: Corporate environmental disclosure of climate change risks.
 Sec. 9003: Administrative procedure and judicial review.
 Sec. 9004: Retention of State authority.
 Sec. 9005: Tribal authority.
 Sec. 9006: Authorization of appropriations.

1 **SEC. 2. FINDINGS.**

2 Congress finds that—

3 (1) unchecked global warming poses a signifi-
 4 cant threat to—

5 (A) the national security and economy of
 6 the United States;

7 (B) public health and welfare in the
 8 United States;

9 (C) the well-being of other countries; and

10 (D) the global environment;

11 (2) under the United Nations Framework Con-
 12 vention on Climate Change, done at New York on
 13 May 9, 1992, the United States is committed to sta-
 14 bilizing greenhouse gas concentrations in the atmos-
 15 phere at a level that will prevent dangerous anthro-
 16 pogenic interference with the climate system;

17 (3) according to the Fourth Assessment Report
 18 of the Intergovernmental Panel on Climate Change,
 19 stabilizing greenhouse gas concentrations in the at-
 20 mosphere at a level that will prevent dangerous in-
 21 terference with the climate system will require a
 22 global effort to reduce anthropogenic greenhouse gas

1 emissions worldwide by 50 to 85 percent below 2000
 2 levels by 2050;

3 (4) prompt, decisive action is critical, since
 4 global warming pollutants can persist in the atmos-
 5 phere for more than a century;

6 (5) the ingenuity of the people of the United
 7 States will allow the United States to become a lead-
 8 er in curbing global warming;

9 (6) it is possible and desirable to cap green-
 10 house gas emissions, from sources that together ac-
 11 count for the majority of those emissions in the
 12 United States, at the current level in 2012, and to
 13 lower the cap each year between 2012 and 2050, on
 14 the condition that the system includes—

15 (A) cost containment measures;

16 (B) periodic review of requirements;

17 (C) an aggressive program for deploying
 18 advanced energy technology;

19 (D) programs to assist low- and middle-in-
 20 come energy consumers; and

21 (E) programs to mitigate the impacts of
 22 any unavoidable global climate change;

23 (7) Congress may need to update the emissions
 24 caps in order to account for continuing scientific

1 data and steps taken, or not taken, by foreign coun-
2 tries;

3 ~~(8) accurate emission data and timely compli-~~
4 ~~ance with the requirements of the greenhouse gas~~
5 ~~emission reduction and trading program established~~
6 ~~under this Act are needed to ensure that reductions~~
7 ~~are achieved and to provide equity, efficiency, and~~
8 ~~openness in the market for allowances subject to the~~
9 ~~program; and~~

10 ~~(9) additional policies external to a cap-and-~~
11 ~~trade program may be required, including with re-~~
12 ~~spect to—~~

13 ~~(A) the transportation sector, where reduc-~~
14 ~~ing greenhouse gas emissions requires changes~~
15 ~~in the vehicle, in the fuels, and in consumer be-~~
16 ~~havior; and~~

17 ~~(B) the built environment, where reducing~~
18 ~~direct and indirect greenhouse gas emissions re-~~
19 ~~quires changes in buildings, appliances, light-~~
20 ~~ing, heating, cooling, and consumer behavior.~~

21 **SEC. 3. PURPOSES.**

22 The purposes of this Act are—

23 ~~(1) to establish the core of a Federal program~~
24 ~~that will reduce United States greenhouse gas emis-~~
25 ~~sions substantially enough between 2007 and 2050~~

1 to avert the catastrophic impacts of global climate
2 change; and

3 ~~(2) to accomplish that purpose while preserving~~
4 ~~robust growth in the United States economy and~~
5 ~~avoiding the imposition of hardship on United States~~
6 ~~citizens.~~

7 **SEC. 4. DEFINITIONS.**

8 In this Act:

9 ~~(1) ADDITIONAL AND ADDITIONALITY.—The~~
10 ~~terms “additional” and “additionality” mean the ex-~~
11 ~~tent to which reductions in greenhouse gas emissions~~
12 ~~or increases in sequestration are incremental to busi-~~
13 ~~ness-as-usual; measured as the difference between—~~

14 ~~(A) baseline greenhouse gas fluxes of an~~
15 ~~offset project; and~~

16 ~~(B) greenhouse gas fluxes of the offset~~
17 ~~project.~~

18 ~~(2) ADMINISTRATOR.—The term “Adminis-~~
19 ~~trator” means the Administrator of the Environ-~~
20 ~~mental Protection Agency.~~

21 ~~(3) BASELINE.—The term “baseline” means~~
22 ~~the greenhouse gas flux or carbon stock that would~~
23 ~~have occurred in the absence of an offset allowance.~~

24 ~~(4) BIOLOGICAL SEQUESTRATION; BIO-~~
25 ~~LOGICALLY SEQUESTERED.—The terms “biological~~

1 sequestration” and “biologically sequestered”
2 mean—

3 (A) the removal of greenhouse gases from
4 the atmosphere by terrestrial biological means;
5 such as by growing plants; and

6 (B) the storage of those greenhouse gases
7 without reversal in the plants or related soils.

8 (5) CARBON DIOXIDE EQUIVALENT.—The term
9 “carbon dioxide equivalent” means, for each green-
10 house gas, the quantity of the greenhouse gas that
11 the Administrator determines makes the same con-
12 tribution to global warming as 1 metric ton of car-
13 bon dioxide.

14 (6) CORPORATION.—The term “Corporation”
15 means the Climate Change Credit Corporation es-
16 tablished by section 4201(a).

17 (7) COVERED FACILITY.—The term “covered
18 facility” means—

19 (A) any facility within the electric power
20 sector that contains fossil fuel-fired electricity
21 generating units that together emit more than
22 10,000 carbon dioxide equivalents of green-
23 house gas in any year;

1 (B) any facility within the industrial sector
 2 that emits more than 10,000 carbon dioxide
 3 equivalents of greenhouse gas in any year;

4 (C) any facility that in any year produces;
 5 or any entity that in any year imports;
 6 petroleum- or coal-based transportation fuel,
 7 the use of which will emit more than 10,000
 8 carbon dioxide equivalents of greenhouse gas;
 9 assuming no capture and permanent sequestra-
 10 tion of that gas; or

11 (D) any facility that in any year produces;
 12 or any entity that in any year imports; nonfuel
 13 chemicals that will emit more than 10,000 car-
 14 bon dioxide equivalents of greenhouse gas; as-
 15 suming no capture and destruction or perma-
 16 nent sequestration of that gas.

17 (8) DESTRUCTION.—The term “destruction”
 18 means the conversion of a greenhouse gas by ther-
 19 mal, chemical, or other means—

20 (A) to another gas with a low- or zero-
 21 global warming potential; and

22 (B) for which credit given reflects the ex-
 23 tent of reduction in global warming potential
 24 actually achieved.

1 (9) ~~ELECTRIC POWER SECTOR.~~—The term
 2 “electric power sector” means the “Electric Power
 3 Industry”, as that term is used in Table ES-7 of
 4 the Environmental Protection Agency document en-
 5 titled “Inventory of U.S. Greenhouse Gas Emissions
 6 and Sinks: 1990–2005”.

7 (10) ~~EMISSION ALLOWANCE.~~—The term “emis-
 8 sion allowance” means an authorization to emit 1
 9 carbon dioxide equivalent of greenhouse gas.

10 (11) ~~EMISSION ALLOWANCE ACCOUNT.~~—The
 11 term “Emission Allowance Account” means the ag-
 12 gregate of emission allowances that the Adminis-
 13 trator establishes for a calendar year.

14 (12) ~~FACILITY.~~—The term “facility” means—
 15 (A) a building, structure, or installation lo-
 16 cated on 1 or more contiguous or adjacent
 17 properties of an entity in the United States;
 18 and

19 (B) at the option of the Administrator, any
 20 activity or operation that has a technical con-
 21 nection with the activities carried out at a facil-
 22 ity, such as use of transportation fleets, pipe-
 23 lines, transmission lines, and distribution lines,
 24 but that is not conducted or located on the
 25 property of the facility.

1 (13) FAIR MARKET VALUE.—The term “fair
2 market value” means the average price, in a par-
3 ticular calendar year, of an emission allowance auc-
4 tioned by the Corporation.

5 (14) GEOLOGICAL SEQUESTRATION; GEOLOGI-
6 CALLY SEQUESTERED.—The terms “geological se-
7 questration” and “geologically sequestered” mean
8 the long-term isolation of greenhouse gases, without
9 reversal, in geological formations, in accordance with
10 section 1421(d) of the Safe Drinking Water Act (42
11 U.S.C. 300h(d)).

12 (15) GREENHOUSE GAS.—The term “green-
13 house gas” means any of—

- 14 (A) carbon dioxide;
- 15 (B) methane;
- 16 (C) nitrous oxide;
- 17 (D) sulfur hexafluoride;
- 18 (E) a hydrofluorocarbon; or
- 19 (F) a perfluorocarbon.

20 (16) INDUSTRIAL SECTOR.—The term “indus-
21 trial sector” means “Industry”, as that term is used
22 in Table ES-7 of the Environmental Protection
23 Agency document entitled “Inventory of U.S. Green-
24 house Gas Emissions and Sinks: 1990–2005”.

25 (17) LEAKAGE.—The term “leakage” means—

1 (A) a potentially unaccounted increase in
 2 greenhouse gas emissions by a facility or entity
 3 caused by an offset project that produces an ac-
 4 counted reduction in greenhouse gas emissions;
 5 or

6 (B) a potentially unaccounted decrease in
 7 sequestration that is caused by an offset project
 8 that results in an accounted increase in seques-
 9 tration.

10 (18) ~~LOAD-SERVING ENTITY.~~—The term “load-
 11 serving entity” means an entity, whether public or
 12 private—

13 (A) that has a legal, regulatory, or con-
 14 tractual obligation to deliver electricity to retail
 15 consumers; and

16 (B) whose rates and costs are, except in
 17 the case of a registered electric cooperative, reg-
 18 ulated by a State agency, regulatory commis-
 19 sion, municipality, or public utility district.

20 (19) ~~NEW ENTRANT.~~—The term “new entrant”
 21 means any facility that commences operation on or
 22 after January 1, 2008.

23 (20) ~~OFFSET ALLOWANCE.~~—The term “offset
 24 allowance” means a unit of reduction in the quantity
 25 of emissions or an increase in sequestration equal to

1 ~~1~~ carbon dioxide equivalent at a facility that is not
 2 a covered facility, where the reduction in emissions
 3 or increase in sequestration is eligible to be used as
 4 an additional means of compliance for the submis-
 5 sion requirements established under section 1202.

6 ~~(21)~~ OFFSET PROJECT.—The term “offset
 7 project” means a project, other than a project at a
 8 covered facility, that reduces greenhouse gas emis-
 9 sions or increases sequestration of carbon dioxide.

10 ~~(22)~~ PROJECT DEVELOPER.—The term “project
 11 developer” means an individual or entity imple-
 12 menting an offset project.

13 ~~(23)~~ RETAIL RATE FOR DISTRIBUTION SERV-
 14 ICE.—

15 ~~(A)~~ IN GENERAL.—The term “retail rate
 16 for distribution service” means the rate that a
 17 load-serving entity charges for the use of the
 18 system of the load-serving entity.

19 ~~(B)~~ EXCLUSION.—The term “retail rate
 20 for distribution service” does not include any
 21 energy component of the rate.

22 ~~(24)~~ RETIRE AN EMISSION ALLOWANCE.—The
 23 term “retire an emission allowance” means to dis-
 24 qualify an emission allowance for any subsequent
 25 use, regardless of whether the use is a sale, ex-

change, or submission of the allowance in satisfying
a compliance obligation.

~~(25)~~ REVERSAL.—The term “reversal” means
an intentional or unintentional loss of sequestered
carbon dioxide to the atmosphere.

~~(26)~~ RURAL ELECTRIC COOPERATIVE.—The
term “rural electric cooperative” means a coopera-
tively-owned association that is eligible to receive
loans under section 4 of the Rural Electrification
Act of 1936 (7 U.S.C. 904).

~~(27)~~ SEQUESTERED AND SEQUESTRATION.—
The terms “sequestered” and “sequestration” mean
the capture, permanent separation, isolation, or re-
moval of greenhouse gases from the atmosphere.

~~(28)~~ STATE REGULATORY AUTHORITY.—The
term “State regulatory authority” means any State
agency that has ratemaking authority with respect
to the retail rate for distribution service.

~~(29)~~ TRANSPORTATION SECTOR.—The term
“transportation sector” means “Transportation”, as
that term is used in Table ES-7 of the Environ-
mental Protection Agency document entitled, “In-
ventory of U.S. Greenhouse Gas Emissions and
Sinks: 1990–2005”.

1 **TITLE I—CAPPING GREENHOUSE**
 2 **GAS EMISSIONS**

3 **Subtitle A—Tracking Emissions**

4 **SEC. 1101. PURPOSE.**

5 The purpose of this subtitle is to establish a Federal
 6 greenhouse gas registry that—

7 (1) is complete, consistent, transparent, and ac-
 8 curate;

9 (2) will collect reliable and accurate data that
 10 can be used by public and private entities to design
 11 efficient and effective energy security initiatives and
 12 greenhouse gas emission reduction strategies; and

13 (3) will provide appropriate high-quality data to
 14 be used for implementing greenhouse gas reduction
 15 policies.

16 **SEC. 1102. DEFINITIONS.**

17 In this subtitle:

18 (1) **AFFECTED FACILITY.**—

19 (A) **IN GENERAL.**—The term “affected fa-
 20 cility” means—

21 (i) a covered facility;

22 (ii) another facility that emits a
 23 greenhouse gas, as determined by the Ad-
 24 ministrator; and

1 (iii) at the option of the Adminis-
 2 trator, a vehicle fleet with emissions of
 3 more than 10,000 carbon dioxide equiva-
 4 lents per year, assuming no double-count-
 5 ing of emissions.

6 (B) EXCLUSIONS.—The term “affected fa-
 7 cility” does not include any facility that—

8 (i) is not a covered facility;

9 (ii) is owned or operated by a small
 10 business (as described in part 121 of title
 11 13, Code of Federal Regulations (or a suc-
 12 cessor regulation)); and

13 (iii) emits fewer than 10,000 carbon
 14 dioxide equivalents in any year.

15 (2) CARBON CONTENT.—The term “carbon con-
 16 tent” means the quantity of carbon (in carbon diox-
 17 ide equivalent) contained in a fuel.

18 (3) CLIMATE REGISTRY.—The term “Climate
 19 Registry” means the greenhouse gas emissions reg-
 20 istry jointly established and managed by more than
 21 40 States and Indian tribes to collect high-quality
 22 greenhouse gas emission data from facilities, cor-
 23 porations, and other organizations to support var-
 24 ious greenhouse gas emission reporting and reduc-

tion policies for the member States and Indian tribes.

(4) ~~FEEDSTOCK FOSSIL FUEL.~~—The term “feedstock fossil fuel” means fossil fuel used as raw material in a manufacturing process.

(5) ~~GREENHOUSE GAS EMISSIONS.~~—The term “greenhouse gas emissions” means emissions of a greenhouse gas, including—

(A) stationary combustion source emissions emitted as a result of combustion of fuels in stationary equipment, such as boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, and other similar sources;

(B) process emissions consisting of emissions from chemical or physical processes other than combustion;

(C) fugitive emissions consisting of intentional and unintentional emissions from equipment leaks, such as joints, seals, packing, and gaskets, or from piles, pits, cooling towers, and other similar sources; and

(D) biogenic emissions resulting from biological processes, such as anaerobic decomposition, nitrification, and denitrification.

1 (6) INDIAN TRIBE.—The term “Indian tribe”
 2 has the meaning given the term in section 4 of the
 3 Indian Self-Determination and Education Assistance
 4 Act (25 U.S.C. 450b).

5 (7) REGISTRY.—The term “Registry” means
 6 the Federal greenhouse gas registry established
 7 under section 1105(a).

8 (8) SOURCE.—The term “source” means any
 9 building, structure, installation, unit, point, oper-
 10 ation, vehicle, land area, or other item that emits or
 11 may emit a greenhouse gas.

12 **SEC. 1103. REPORTING REQUIREMENTS.**

13 (a) IN GENERAL.—Subject to this section, each af-
 14 fected facility shall submit to the Administrator, for inclu-
 15 sion in the Registry, periodic reports, including annual
 16 and quarterly data, that—

17 (1) include the quantity and type of fossil fuels,
 18 including feedstock fossil fuels, that are extracted,
 19 produced, refined, imported, exported, or consumed
 20 at or by the facility;

21 (2) include the quantity of hydrofluorocarbons,
 22 perfluorocarbons, sulfur hexafluoride, nitrous oxide,
 23 carbon dioxide that has been captured and seques-
 24 tered, and other greenhouse gases generated, pro-

1 duced, imported, exported, or consumed at or by the
2 facility;

3 (3) include the quantity of electricity generated,
4 imported, exported, or consumed by or at the facil-
5 ity, and information on the quantity of greenhouse
6 gases emitted when the imported, exported, or con-
7 sumed electricity was generated, as determined by
8 the Administrator;

9 (4) include the aggregate quantity of all green-
10 house gas emissions from sources at the facility, in-
11 cluding stationary combustion source emissions,
12 process emissions, and fugitive emissions;

13 (5) include greenhouse gas emissions expressed
14 in metric tons of each greenhouse gas emitted and
15 in the quantity of carbon dioxide equivalents of each
16 greenhouse gas emitted;

17 (6) include a list and description of sources of
18 greenhouse gas emissions at the facility;

19 (7) quantify greenhouse gas emissions in ac-
20 cordance with the measurement standards estab-
21 lished under section 1104;

22 (8) include other data necessary for accurate
23 and complete accounting of greenhouse gas emis-
24 sions, as determined by the Administrator;

1 (9) include an appropriate certification regard-
 2 ing the accuracy and completeness of reported data;
 3 as determined by the Administrator; and

4 (10) are submitted electronically to the Admin-
 5 istrator, in such form and to such extent as may be
 6 required by the Administrator.

7 (b) DE MINIMIS EXEMPTIONS.—

8 (1) IN GENERAL.—The Administrator may de-
 9 termine—

10 (A) whether certain sources at a facility
 11 should be considered to be eligible for a de
 12 minimis exemption from a requirement for re-
 13 porting under subsection (a); and

14 (B) the level of greenhouse gases emitted
 15 from a source that would qualify for such an
 16 exemption.

17 (2) FACTORS.—In making a determination
 18 under paragraph (1), the Administrator shall con-
 19 sider the availability and suitability of simplified
 20 techniques and tools for quantifying emissions and
 21 the cost to measure those emissions relative to the
 22 purposes of this title, including the goal of collecting
 23 complete and consistent facility-wide data.

24 (c) VERIFICATION OF REPORT REQUIRED.—Before
 25 including the information from a report required under

1 this section in the Registry, the Administrator shall verify
 2 the completeness and accuracy of the report using infor-
 3 mation provided under this section, obtained under section
 4 9003(c), or obtained under other provisions of law.

5 (d) TIMING.—

6 (1) CALENDAR YEARS 2004 THROUGH 2007.—

7 For a baseline period of calendar years 2004
 8 through 2007, each affected facility shall submit re-
 9 quired annual data described in this section to the
 10 Administrator not later than March 31, 2009.

11 (2) SUBSEQUENT CALENDAR YEARS.—For cal-
 12 endar year 2008 and each subsequent calendar year,
 13 each affected facility shall submit quarterly data de-
 14 scribed in this section to the Administrator not later
 15 than 60 days after the end of the applicable quarter.

16 (e) NO EFFECT ON OTHER REQUIREMENTS.—Noth-
 17 ing in this title affects any requirement in effect as of the
 18 date of enactment of this Act relating to the reporting
 19 of—

20 (1) fossil fuel production, refining, importation,
 21 exportation, or consumption data;

22 (2) greenhouse gas emission data; or

23 (3) other relevant data.

24 **SEC. 1104. DATA QUALITY AND VERIFICATION.**

25 (a) PROTOCOLS AND METHODS.—

1 (1) IN GENERAL.—The Administrator shall es-
2 tablish by regulation, taking into account the work
3 done by the Climate Registry, comprehensive proto-
4 cols and methods to ensure the accuracy, complete-
5 ness, consistency, and transparency of data on
6 greenhouse gas emissions and fossil fuel production,
7 refining, importation, exportation, and consumption
8 submitted to the Registry that include—

9 (A) accounting and reporting standards for
10 fossil fuel production, refining, importation, ex-
11 portation, and consumption;

12 (B) a requirement that, where techno-
13 logically feasible, submitted data are monitored
14 using monitoring systems for fuel flow or emis-
15 sions, such as continuous emission monitoring
16 systems or equivalent systems of similar rigor,
17 accuracy, quality, and timeliness;

18 (C) a requirement that, if a facility has al-
19 ready been directed to monitor emissions of a
20 greenhouse gas using a continuous emission
21 monitoring system under existing law, that sys-
22 tem be used in complying with this Act with re-
23 spect to the greenhouse gas;

24 (D) for cases in which the Administrator
25 determines that monitoring emissions with the

precision, reliability, accessibility, and timeliness similar to that provided by a continuous emission monitoring system are not technologically feasible, standardized methods for calculating greenhouse gas emissions in specific industries using other readily available and reliable information, such as fuel consumption, materials consumption, production, or other relevant activity data, on the condition that those methods do not underreport emissions, as compared with the continuous emission monitoring system;

(E) information on the accuracy of measurement and calculation methods;

(F) methods to avoid double-counting of greenhouse gas emissions;

(G) protocols to prevent an affected facility from avoiding the reporting requirements of this title; and

(H) protocols for verification of data submitted by affected facilities.

(2) BEST PRACTICES.—The protocols and methods developed under paragraph (1) shall incorporate and conform to the best practices from the most recent Federal, State, and international proto-

1 cols for the measurement, accounting, reporting, and
 2 verification of greenhouse gas emissions to ensure
 3 the accuracy, completeness, and consistency of the
 4 data.

5 (b) VERIFICATION; INFORMATION BY REPORTING
 6 ENTITIES.—Each affected facility shall—

7 (1) provide information sufficient for the Ad-
 8 ministrator to verify, in accordance with the proto-
 9 cols and methods developed under subsection (a);
 10 that the fossil fuel data and greenhouse gas emission
 11 data of the affected facility have been completely
 12 and accurately reported; and

13 (2) ensure the submission or retention, for the
 14 5-year period beginning on the date of provision of
 15 the information, of—

16 (A) data sources;

17 (B) information on internal control activi-
 18 ties;

19 (C) information on assumptions used in re-
 20 porting emissions and fuels;

21 (D) uncertainty analyses; and

22 (E) other relevant data and information to
 23 facilitate the verification of reports submitted to
 24 the Registry.

1 (c) **WAIVER OF REPORTING REQUIREMENTS.**—The
 2 Administrator may waive reporting requirements for spe-
 3 cific facilities if the Administrator determines that suffi-
 4 cient and equally or more reliable data are available under
 5 other provisions of law.

6 (d) **MISSING DATA.**—If information, satisfactory to
 7 the Administrator, is not provided for an affected facility,
 8 the Administrator shall—

9 (1) prescribe methods to estimate emissions for
 10 the facility for each period for which data are miss-
 11 ing, reflecting the highest emission levels that may
 12 reasonably have occurred during the period for
 13 which data are missing; and

14 (2) take appropriate enforcement action pursu-
 15 ant to this section and section 9003(b).

16 **SEC. 1105. FEDERAL GREENHOUSE GAS REGISTRY.**

17 (a) **ESTABLISHMENT.**—The Administrator shall es-
 18 tablish a Federal greenhouse gas registry.

19 (b) **ADMINISTRATION.**—In establishing the Registry,
 20 the Administrator shall—

21 (1) design and operate the Registry;

22 (2) establish an advisory body that is broadly
 23 representative of private enterprise, agriculture, en-
 24 vironmental groups, and State, tribal, and local gov-

ernments to guide the development and management
of the Registry;

~~(3)~~ provide coordination and technical assistance for the development of proposed protocols and methods, taking into account the duties carried out by the Climate Registry, to be published by the Administrator;

~~(4)(A)~~ develop an electronic format for reporting under guidelines established under section 1104(a)(1); and

~~(B)~~ make the electronic format available to reporting entities;

~~(5)~~ verify and audit the data submitted by reporting entities;

~~(6)~~ establish consistent policies for calculating carbon content and greenhouse gas emissions for each type of fossil fuel reported under section 1103;

~~(7)~~ calculate carbon content and greenhouse gas emissions associated with the combustion of fossil fuel data reported by reporting entities;

~~(8)~~ immediately publish on the Internet all information contained in the Registry, except in any case in which publishing the information would result in a disclosure of—

1 (A) information vital to national security;
2 as determined by the President; or

3 (B) confidential business information that
4 cannot be derived from information that is oth-
5 erwise publicly available and that would cause
6 significant calculable competitive harm if pub-
7 lished (except that information relating to
8 greenhouse gas emissions shall not be consid-
9 ered to be confidential business information).

10 (c) ~~THIRD-PARTY VERIFICATION.~~—The Adminis-
11 trator may use the services of third parties that have no
12 conflicts of interest to verify reports required under sec-
13 tion ~~1103~~.

14 (d) ~~REGULATIONS.~~—The Administrator shall—

15 (1) not later than 180 days after the date of
16 enactment of this Act, propose regulations to carry
17 out this section; and

18 (2) not later than July 1, 2008, promulgate
19 final regulations to carry out this section.

20 **~~SEC. 1106. ENFORCEMENT.~~**

21 (a) ~~CIVIL ACTIONS.~~—The Administrator may bring
22 a civil action in United States district court against the
23 owner or operator of an affected facility that fails to com-
24 ply with any requirement of this subtitle.

1 (b) ~~PENALTY.~~—Any person that has violated or is
 2 violating this subtitle shall be subject to a civil penalty
 3 of not more than \$25,000 per day of each violation.

4 **Subtitle B—Reducing Emissions**

5 **SEC. 1201. EMISSION ALLOWANCE ACCOUNT.**

6 (a) ~~IN GENERAL.~~—The Administrator shall establish
 7 a separate quantity of emission allowances for each of cal-
 8 endar years 2012 through 2050.

9 (b) ~~IDENTIFICATION NUMBERS.~~—The Administrator
 10 shall assign to each emission allowance established under
 11 subsection (a) a unique identification number that in-
 12 cludes the calendar year for which that emission allowance
 13 was established.

14 (c) ~~LEGAL STATUS OF EMISSION ALLOWANCES.~~—

15 (1) ~~IN GENERAL.~~—An emission allowance shall
 16 not be a property right.

17 (2) ~~TERMINATION OR LIMITATION.~~—Nothing in
 18 this Act or any other provision of law limits the au-
 19 thority of the United States to terminate or limit an
 20 emission allowance.

21 (3) ~~OTHER PROVISIONS UNAFFECTED.~~—Noth-
 22 ing in this Act relating to emission allowances shall
 23 affect the application of, or compliance with, any
 24 other provision of law to or by a covered facility.

1 (d) ALLOWANCES FOR EACH CALENDAR YEAR.—The
 2 numbers of emission allowances established by the Admin-
 3 istrator for each of calendar years 2012 through 2050
 4 shall be as follows:

Calendar Year	Number of Emission Allowances (in Millions)
2012	5,200
2013	5,104
2014	5,008
2015	4,912
2016	4,816
2017	4,720
2018	4,624
2019	4,528
2020	4,432
2021	4,336
2022	4,240
2023	4,144
2024	4,048
2025	3,952
2026	3,856
2027	3,760
2028	3,664
2029	3,568
2030	3,472
2031	3,376
2032	3,280
2033	3,184

Calendar Year	Number of Emission Allowances (in Millions)
2034	3,088
2035	2,992
2036	2,896
2037	2,800
2038	2,704
2039	2,608
2040	2,512
2041	2,416
2042	2,320
2043	2,224
2044	2,128
2045	2,032
2046	1,936
2047	1,840
2048	1,744
2049	1,646
2050	1,560

1 **SEC. 1202. COMPLIANCE OBLIGATION.**

2 (a) ~~IN GENERAL.~~—Not later than 90 days after the
3 end of a calendar year, the owner or operator of a covered
4 facility shall submit to the Administrator an emission al-
5 lowance, an offset allowance awarded pursuant to subtitle
6 D of title II, or an international allowance or credit ob-
7 tained in compliance with regulations promulgated under
8 section 2502, for each carbon dioxide equivalent of green-
9 house gas that—

1 (1) was emitted by that facility during the pre-
2 ceding year;

3 (2) will, assuming no capture and permanent
4 geological sequestration of that gas, be emitted from
5 the use of any petroleum- or coal-based transpor-
6 tation fuel that was produced or imported at that fa-
7 cility during the preceding year; and

8 (3) will, assuming no capture and destruction
9 or permanent geological sequestration of that gas, be
10 emitted from any nonfuel chemical that was pro-
11 duced or imported at that facility during the pre-
12 ceding year.

13 (b) RETIREMENT OF ALLOWANCES.—Immediately
14 upon receipt of an emission allowance under subsection
15 (a), the Administrator shall retire the emission allowance.

16 (c) DETERMINATION OF COMPLIANCE.—Not later
17 than July 1 of each year, the Administrator shall deter-
18 mine whether the owners and operators of all covered fa-
19 cilities are in full compliance with subsection (a) for the
20 preceding year.

21 **SEC. 1203. PENALTY FOR NONCOMPLIANCE.**

22 (a) EXCESS EMISSIONS PENALTY.—

23 (1) IN GENERAL.—The owner or operator of
24 any covered facility that fails for any year to submit
25 to the Administrator by the deadline described in

1 section 1202(a) or 2303, 1 or more of the emission
 2 allowances due pursuant to either of those sections
 3 shall be liable for the payment to the Administrator
 4 of an excess emissions penalty.

5 (2) AMOUNT.—The amount of an excess emis-
 6 sions penalty required to be paid under paragraph
 7 (1) shall be, as determined by the Administrator, an
 8 amount equal to the product obtained by multi-
 9 plying—

10 (A) the number of excess emission allow-
 11 ances that the owner or operator failed to sub-
 12 mit; and

13 (B) the greater of—

14 (i) \$200; or

15 (ii) a dollar figure representing 3
 16 times the mean market value of an emis-
 17 sion allowance during the calendar year for
 18 which the emission allowances were due.

19 (3) TIMING.—An excess emissions penalty re-
 20 quired under this subsection shall be immediately
 21 due and payable to the Administrator, without de-
 22 mand, in accordance with such regulations as shall
 23 be promulgated by the Administrator by the date
 24 that is 1 year after the date of enactment of this
 25 Act.

1 (4) DEPOSIT.—The Administrator shall deposit
 2 each excess emissions penalty paid under this sub-
 3 section in the Treasury of the United States.

4 (5) NO EFFECT ON LIABILITY.—An excess
 5 emissions penalty due and payable by the owner or
 6 operator of a covered facility under this subsection
 7 shall not diminish the liability of the owner or oper-
 8 ator for any fine, penalty, or assessment against the
 9 owner or operator for the same violation under any
 10 other provision of this Act or any other law.

11 (b) EXCESS EMISSION ALLOWANCE.—

12 (1) IN GENERAL.—The owner or operator of a
 13 covered facility that fails for any year to submit to
 14 the Administrator by the deadline described in sec-
 15 tion 1202(a) or 2303 1 or more of the emission al-
 16 lowances due pursuant to either of those sections
 17 shall be liable to offset the excess emissions by an
 18 equal quantity, in tons, during—

19 (A) the following calendar year; or

20 (B) such longer period as the Adminis-
 21 trator may prescribe.

22 (2) PLAN.—

23 (A) IN GENERAL.—Not later than 60 days
 24 after the end of the calendar year during which
 25 a covered facility emits excess emissions, the

owner or operator of the covered facility shall submit to the Administrator, and to the State in which the covered facility is located, a proposed plan to achieve the required offsets for the excess emissions.

(B) ~~CONDITION OF OPERATION.~~—Upon approval of a proposed plan described in subparagraph (A) by the Administrator, the plan, as submitted, modified, or conditioned, shall be considered to be a condition of the operating permit for the covered facility, without further review or revision of the permit.

(C) ~~DEDUCTION OF ALLOWANCES.~~—For each covered facility that, in any calendar year, emits excess emissions, the Administrator shall deduct, from emission allowances allocated to the covered facility for the calendar year, or for succeeding years during which offsets are required, emission allowances equal to the excess quantity, in tons, of the excess emissions.

(c) ~~PROHIBITION.~~—It shall be unlawful for the owner or operator of any facility liable for a penalty and offset under this section to fail—

(1) to pay the penalty in accordance with this section;

1 (2) to provide, and thereafter comply with, a
 2 proposed plan for compliance as required by sub-
 3 section (b)(2); and

4 (3) to offset excess emissions as required by
 5 subsection (b)(1).

6 (d) NO EFFECT ON OTHER SECTION.—Nothing in
 7 this subtitle limits or otherwise affects the application of
 8 section 9003(b).

9 **TITLE II—MANAGING AND CON-**
 10 **TAINING COSTS EFFICIENTLY**
 11 **Subtitle A—Trading**

12 **SEC. 2101. SALE, EXCHANGE, AND RETIREMENT OF EMIS-**
 13 **SION ALLOWANCES.**

14 Except as otherwise provided in this Act, the lawful
 15 holder of an emission allowance may sell, exchange, trans-
 16 fer, submit for compliance in accordance with section
 17 1202, or retire the emission allowance.

18 **SEC. 2102. NO RESTRICTION ON TRANSACTIONS.**

19 The privilege of purchasing, holding, selling, exchang-
 20 ing, and retiring emission allowances shall not be re-
 21 stricted to the owners and operators of covered facilities.

22 **SEC. 2103. ALLOWANCE TRANSFER SYSTEM.**

23 (a) IN GENERAL.—Not later than 18 months after
 24 the date of enactment of this Act, the Administrator shall
 25 promulgate regulations to carry out the provisions of this

1 Act relating to emission allowances, including regulations
 2 providing that the transfer of emission allowances shall
 3 not be effective until such date as a written certification
 4 of the transfer, signed by a responsible official of each
 5 party to the transfer, is received and recorded by the Ad-
 6 ministrator in accordance with those regulations.

7 (b) TRANSFERS.—

8 (1) IN GENERAL.—The regulations promulgated
 9 under subsection (a) shall permit the transfer of al-
 10 lowances prior to the issuance of the allowances.

11 (2) DEDUCTION AND ADDITION OF TRANS-
 12 FERS.—A recorded pre-allocation transfer of allow-
 13 ances shall be—

14 (A) deducted by the Administrator from
 15 the number of allowances that would otherwise
 16 be distributed to the transferor; and

17 (B) added to those allowances distributed
 18 to the transferee.

19 **SEC. 2104. ALLOWANCE TRACKING SYSTEM.**

20 The regulations promulgated under section 2103(a)
 21 shall include a system for issuing, recording, and tracking
 22 emission allowances that shall specify all necessary proce-
 23 dures and requirements for an orderly and competitive
 24 functioning of the emission allowance system.

1 **Subtitle B—Banking**

2 ~~SEC. 2201. INDICATION OF CALENDAR YEAR.~~

3 An emission allowance submitted to the Adminis-
4 trator by the owner or operator of a covered facility in
5 accordance with section 1202(a) shall not be required to
6 indicate in the identification number of the emission allow-
7 ance the calendar year for which the emission allowance
8 is submitted.

9 ~~SEC. 2202. EFFECT OF TIME.~~

10 The passage of time shall not, by itself, cause an
11 emission allowance to be retired or otherwise diminish the
12 compliance value of the emission allowance.

13 **Subtitle C—Borrowing**

14 ~~SEC. 2301. REGULATIONS.~~

15 ~~(a) IN GENERAL.—~~Not later than 3 years after the
16 date of enactment of this Act, the Administrator shall pro-
17 mulgate regulations under which, subject to subsection
18 ~~(b)~~, the owner or operator of a covered facility may—

19 ~~(1)~~ borrow emission allowances from the Ad-
20 ministrator; and

21 ~~(2)~~ for a calendar year, submit borrowed emis-
22 sion allowances to the Administrator in satisfaction
23 of up to 15 percent of the compliance obligation
24 under section 1202(a).

1 (b) **LIMITATION.**—An emission allowance borrowed
 2 under subsection (a) shall be an emission allowance estab-
 3 lished by the Administrator for a specific future calendar
 4 year under subsection 1201(a).

5 **SEC. 2302. TERM.**

6 The owner or operator of a covered facility shall not
 7 submit, and the Administrator shall not accept, a bor-
 8 rowed emission allowance in partial satisfaction of the
 9 compliance obligation under section 1202(a) for any cal-
 10 endar year that is more than 5 years earlier than the cal-
 11 endar year included in the identification number of the
 12 borrowed emission allowance.

13 **SEC. 2303. REPAYMENT WITH INTEREST.**

14 For each borrowed emission allowance submitted in
 15 partial satisfaction of the compliance obligation under sub-
 16 section 1202(a) for a particular calendar year (referred
 17 to in this section as the “use year”), the number of emis-
 18 sion allowances that the owner or operator is required to
 19 submit under section 1202(a) for the year from which the
 20 borrowed emission allowance was taken (referred to in this
 21 section as the “source year”) shall be increased by an
 22 amount equal to the product obtained by multiplying—
 23 (1) 1.1; and
 24 (2) the number of years beginning after the use
 25 year and before the source year.

Subtitle D—Offsets

SEC. 2401. OUTREACH INITIATIVE ON REVENUE ENHANCEMENT FOR AGRICULTURAL PRODUCERS.

(a) ~~ESTABLISHMENT.~~—The Secretary of Agriculture, acting through the Chief of the Natural Resources Conservation Service, the Chief of the Forest Service, the Administrator of the Cooperative State Research, Education, and Extension Service, and land-grant colleges and universities, in consultation with the Administrator and the heads of other appropriate departments and agencies, shall establish an outreach initiative to provide information to agricultural producers, agricultural organizations, foresters, and other landowners about opportunities under this subtitle to earn new revenue.

(b) ~~COMPONENTS.~~—The initiative under this section—

(1) shall be designed to ensure that, to the maximum extent practicable, agricultural organizations and individual agricultural producers, foresters, and other landowners receive detailed practical information about—

(A) opportunities to earn new revenue under this subtitle;

1 ~~(B)~~ measurement protocols, monitoring,
 2 verifying, inventorying, registering, insuring,
 3 and marketing offsets under this title;

4 ~~(C)~~ emerging domestic and international
 5 markets for energy crops, allowances, and off-
 6 sets; and

7 ~~(D)~~ local, regional, and national databases
 8 and aggregation networks to facilitate achieve-
 9 ment, measurement, registration, and sales of
 10 offsets;

11 ~~(2)~~ shall provide—

12 ~~(A)~~ outreach materials, including the hand-
 13 book published under subsection (c), to inter-
 14 ested parties;

15 ~~(B)~~ workshops; and

16 ~~(C)~~ technical assistance; and

17 ~~(3)~~ may include the creation and development
 18 of regional marketing centers or coordination with
 19 existing centers (including centers within the Nat-
 20 ural Resources Conservation Service or the Coopera-
 21 tive State Research, Education, and Extension Serv-
 22 ice or at land-grant colleges and universities).

23 ~~(c)~~ HANDBOOK.—

24 ~~(1)~~ IN GENERAL.—Not later than 2 years after
 25 the date of enactment of this Act, the Secretary of

1 Agriculture, in consultation with the Administrator
 2 and after an opportunity for public comment, shall
 3 publish a handbook for use by agricultural pro-
 4 ducers, agricultural cooperatives, foresters, other
 5 landowners, offset buyers, and other stakeholders
 6 that provides easy-to-use guidance on achieving, re-
 7 porting, registering, and marketing offsets.

8 (2) DISTRIBUTION.—The Secretary of Agri-
 9 culture shall ensure, to the maximum extent prac-
 10 ticable, that the handbook—

11 (A) is made available through the Internet
 12 and in other electronic media;

13 (B) includes, with respect to the electronic
 14 form of the handbook described in subpara-
 15 graph (A), electronic forms and calculation
 16 tools to facilitate the petition process described
 17 in section 2404; and

18 (C) is distributed widely through land-
 19 grant colleges and universities and other appro-
 20 priate institutions.

21 **SEC. 2402. ESTABLISHMENT OF DOMESTIC OFFSET PRO-**
 22 **GRAM.**

23 (a) ALTERNATIVE MEANS OF COMPLIANCE.—Begin-
 24 ning with calendar year 2012, the owner or operator of
 25 a covered entity may satisfy 15 percent of the total allow-

1 anee submission requirement of the covered entity under
 2 section 1202(a) by submitting offset allowances generated
 3 in accordance with this subtitle.

4 (b) REGULATIONS REQUIRED.—Not later than 18
 5 months after the date of enactment of this Act, the Ad-
 6 ministrator, in consultation with the Secretary of Agri-
 7 culture, shall promulgate regulations authorizing the
 8 issuance and certification of offset allowances from certain
 9 agricultural, forestry, and other land use-related projects
 10 undertaken within the United States, and certain other
 11 projects identified by the Administrator under section
 12 2403(b)(4), including provisions that—

13 (1) ensure that those offsets represent real,
 14 verifiable, additional, permanent, and enforceable re-
 15 ductions in greenhouse gas emissions or increases in
 16 biological sequestration;

17 (2) specify the types of offset projects eligible
 18 to generate offset allowances, in accordance with
 19 section 2403;

20 (3) establish procedures for project initiation
 21 and approval, in accordance with section 2404;

22 (4) establish procedures to monitor, quantify,
 23 and discount reductions in greenhouse gas emissions
 24 or increases in biological sequestration, in accord-

1 ance with subsections (d) through (g) of section
2 2404;

3 (5) establish procedures for verification, reg-
4 istration, and issuance of offset allowances, in ac-
5 cordance with section 2405; and

6 (6) ensure permanence of offsets by mitigating
7 and compensating for reversals, in accordance with
8 section 2406.

9 (c) OFFSET ALLOWANCES AWARDED.—The Adminis-
10 trator shall issue offset allowances for qualifying emission
11 reductions and biological sequestrations from offset
12 projects that satisfy the applicable requirements of this
13 subtitle.

14 (d) OWNERSHIP.—Initial ownership of an offset al-
15 lowance shall lie with a project developer, unless otherwise
16 specified in a legally-binding contract or agreement.

17 (e) TRANSFERABILITY.—An offset allowance gen-
18 erated pursuant to this subtitle may be sold, traded, or
19 transferred, on the conditions that—

20 (1) the offset allowance has not expired or been
21 retired or canceled; and

22 (2) liability and responsibility for mitigating
23 and compensating for reversals of registered offset
24 allowances is specified in accordance with section
25 2406(b).

1 **SEC. 2403. ELIGIBLE AGRICULTURAL AND FORESTRY OFF-**
 2 **SET PROJECT TYPES.**

3 (a) ~~IN GENERAL.~~—Offset allowances from agricul-
 4 tural, forestry, and other land use-related projects shall
 5 be limited to those allowances achieving an offset of 1 or
 6 more greenhouse gases by a method other than a reduc-
 7 tion of combustion of greenhouse gas-emitting fuel.

8 (b) ~~CATEGORIES OF ELIGIBLE AGRICULTURAL, FOR-~~
 9 ~~ESTRY, AND OTHER LAND USE-RELATED PROJECTS.~~—
 10 Subject to the requirements promulgated pursuant to sec-
 11 tion 2402(b), the types of operations eligible to generate
 12 offset allowances under this subtitle include—

13 (1) agricultural and rangeland sequestration
 14 and management practices, including—

15 (A) altered tillage practices;

16 (B) winter cover cropping, continuous
 17 cropping, and other means to increase biomass
 18 returned to soil in lieu of planting followed by
 19 fallowing;

20 (C) conversion of cropland to rangeland or
 21 grassland, on the condition that the land has
 22 been in nonforest use for at least 10 years be-
 23 fore the date of initiation of the project;

24 (D) reduction of nitrogen fertilizer use or
 25 increase in nitrogen use efficiency;

1 ~~(E)~~ reduction in the frequency and dura-
 2 tion of flooding of rice paddies; and

3 ~~(F)~~ reduction in carbon emissions from or-
 4 ganic soils;

5 ~~(2)~~ changes in carbon stocks attributed to land
 6 use change and forestry activities limited to—

7 ~~(A)~~ afforestation or reforestation of acre-
 8 age not forested as of the date of enactment of
 9 this Act; and

10 ~~(B)~~ forest management resulting in an in-
 11 crease in forest stand volume;

12 ~~(3)~~ manure management and disposal, includ-
 13 ing—

14 ~~(A)~~ waste aeration; and

15 ~~(B)~~ methane capture and combustion;

16 ~~(4)~~ subject to the requirements of this subtitle,
 17 any other terrestrial offset practices identified by the
 18 Administrator, including—

19 ~~(A)~~ the capture or reduction of noncovered
 20 fugitive emissions;

21 ~~(B)~~ methane capture and combustion at
 22 nonagricultural facilities; and

23 ~~(C)~~ other actions that result in the avoid-
 24 ance or reduction of greenhouse gas emissions
 25 in accordance with section 2402; and

1 ~~(5)~~ combinations of any of the offset practices
 2 described in paragraphs ~~(1)~~ through ~~(4)~~.

3 ~~(c) EXCLUSION.—~~A project participating in a Fed-
 4 eral, State, or local cost-sharing, competitive grant, or
 5 technical assistance program shall not be eligible to gen-
 6 erate offset allowances under this subtitle.

7 ~~(d) EARNED ALLOWANCES.—~~

8 ~~(1) IN GENERAL.—~~Any project approved by the
 9 Administrator shall earn offset allowances in propor-
 10 tion to the private investment in the project, as de-
 11 scribed in paragraph ~~(2)~~.

12 ~~(2) PRIVATE INVESTMENT.—~~

13 ~~(A) IN GENERAL.—~~Except as provided in
 14 subparagraph ~~(B)~~, the private share of invest-
 15 ment in the project shall be assumed to be 50
 16 percent.

17 ~~(B) DEMONSTRATION OF INVESTMENT.—~~
 18 Subparagraph ~~(A)~~ shall not apply in any case
 19 in which a project elects to demonstrate the pri-
 20 vate share of investment in the project in ae-
 21 cordance with rules established by the Adminis-
 22 trator.

23 **SEC. 2404. PROJECT INITIATION AND APPROVAL.**

24 ~~(a) PROJECT APPROVAL.—~~A project developer—

1 (1) may submit a petition for offset project ap-
 2 proval at any time following the effective date of
 3 regulations promulgated under section 2402(b); but

4 (2) may not register or issue offset allowances
 5 until such approval is received and until after the
 6 emission reductions or sequestrations supporting the
 7 offset allowances have actually occurred.

8 (b) PETITION PROCESS.—Prior to offset registration
 9 and issuance of offset allowances, a project developer shall
 10 submit a petition to the Administrator, consisting of—

11 (1) a copy of the monitoring and quantification
 12 plan prepared for the offset project, as described
 13 under subsection (d);

14 (2) a greenhouse gas initiation certification, as
 15 described under subsection (e); and

16 (3) subject to the requirements of this subtitle,
 17 any other information identified by the Adminis-
 18 trator as necessary to meet the objectives of this
 19 subtitle.

20 (c) APPROVAL AND NOTIFICATION.—

21 (1) IN GENERAL.—Not later than 180 days
 22 after the date on which the Administrator receives a
 23 complete petition under subsection (b), the Adminis-
 24 trator shall—

1 (A) determine whether the monitoring and
2 quantification plan satisfies the applicable re-
3 quirements of this subtitle;

4 (B) determine whether the greenhouse gas
5 initiation certification indicates a significant de-
6 viation in accordance with subsection (e)(3);

7 (C) notify the project developer of the de-
8 terminations under subparagraphs (A) and (B);
9 and

10 (D) issue offset allowances for approved
11 projects.

12 (2) APPEAL.—The Administrator shall establish
13 mechanisms for appeal and review of determinations
14 made under this subsection.

15 (d) MONITORING AND QUANTIFICATION.—

16 (1) IN GENERAL.—A project developer shall
17 make use of the standardized tools and methods de-
18 scribed in this section to monitor, quantify, and dis-
19 count reductions in greenhouse gas emissions or in-
20 creases in sequestration.

21 (2) MONITORING AND QUANTIFICATION
22 PLAN.—A monitoring and quantification plan shall
23 be used to monitor, quantify, and discount reduc-
24 tions in greenhouse gas emissions or increases in se-
25 questration as described by this subsection.

1 ~~(3) PLAN COMPLETION AND RETENTION.—A~~
 2 monitoring and quantification plan shall be—

3 ~~(A) completed for all offset projects prior~~
 4 to offset project initiation; and

5 ~~(B) retained by the project developer for~~
 6 the duration of the offset project.

7 ~~(4) PLAN REQUIREMENTS.—Subject to section~~
 8 2402, the Administrator shall specify the required
 9 components of a monitoring and quantification plan;
 10 including—

11 ~~(A) a description of the offset project, in-~~
 12 cluding project type;

13 ~~(B) a determination of accounting periods;~~

14 ~~(C) an assignment of reporting responsi-~~
 15 bility;

16 ~~(D) the contents and timing of public re-~~
 17 ports, including summaries of the original data,
 18 as well as the results of any analyses;

19 ~~(E) a delineation of project boundaries,~~
 20 based on methods and formats determined to be
 21 acceptable to the Administrator;

22 ~~(F) a description of which of the moni-~~
 23 toring and quantification tools developed under
 24 subsection (f) are to be used to monitor and

quantify changes in greenhouse gas fluxes or carbon stocks associated with a project;

(G) a description of which of the standardized methods developed under subsection (g) to be used to determine additionality, estimate the baseline carbon, and discount for leakage;

(H) based on the standardized methods chosen in subparagraphs (F) and (G), a determination of uncertainty in accordance with subsection (h);

(I) what site-specific data, if any, will be used in monitoring, quantification, and the determination of discounts;

(J) a description of procedures for use in managing and storing data, including quality-control standards and methods, such as redundancy in case records are lost; and

(K) subject to the requirements of this subtitle, any other information identified by the Administrator as being necessary to meet the objectives of this subtitle.

(e) GREENHOUSE GAS INITIATION CERTIFICATION.—

(1) IN GENERAL.—In reviewing a petition submitted under subsection (b), the Administrator shall

1 seek to exclude each activity that undermines the in-
 2 tegrity of the offset program established under this
 3 subtitle, such as the conversion or clearing of land,
 4 or marked change in management regime, in antici-
 5 pation of offset project initiation.

6 ~~(2) GREENHOUSE GAS INITIATION CERTIFI-~~
 7 ~~CATION REQUIREMENTS.—~~A greenhouse gas initi-
 8 ation certification developed under this subsection
 9 shall include—

10 ~~(A)~~ the estimated greenhouse gas flux or
 11 carbon stock for the offset project for each of
 12 the 4 complete calendar years preceding the ef-
 13 fective date of the regulations promulgated
 14 under section 2402(b); and

15 ~~(B)~~ the estimated greenhouse gas flux or
 16 carbon stock for the offset project, averaged
 17 across each of the 4 calendar years preceding
 18 the effective date of the regulations promul-
 19 gated under section 2402(b).

20 ~~(3) DETERMINATION OF SIGNIFICANT DEVI-~~
 21 ~~ATION.—~~Based on standards developed by the Ad-
 22 ministrator—

23 ~~(A)~~ each greenhouse gas initiation certifi-
 24 cation submitted pursuant to this section shall
 25 be reviewed; and

1 ~~(B)~~ a determination shall be made as to
 2 whether, as a result of activities or behavior in-
 3 consistent with the purposes of this title, a sig-
 4 nificant deviation exists between the average
 5 annual greenhouse gas flux or carbon stock and
 6 the greenhouse gas flux or carbon stock for a
 7 given year.

8 ~~(f)~~ DEVELOPMENT OF MONITORING AND QUAN-
 9 TIFICATION TOOLS FOR AGRICULTURAL AND FORESTRY
 10 PROJECTS.—

11 ~~(1)~~ IN GENERAL.—Subject to section 2402(b),
 12 the Administrator, in consultation with the Sec-
 13 retary of Agriculture, shall develop standardized
 14 tools for use in the monitoring and quantification of
 15 changes in greenhouse gas fluxes or carbon stocks
 16 for each offset project type listed under section
 17 2403(b).

18 ~~(2)~~ TOOL DEVELOPMENT.—The tools used to
 19 monitor and quantify changes in greenhouse gas
 20 fluxes or carbon stocks shall, for each project type,
 21 include applicable—

22 ~~(A)~~ statistically-sound field and remote
 23 sensing sampling methods, procedures, tech-
 24 niques, protocols, or programs;

1 (B) models, factors, equations, or look-up
2 tables; and

3 (C) any other process or tool considered to
4 be acceptable by the Administrator, in consulta-
5 tion with the Secretary of Agriculture.

6 (g) DEVELOPMENT OF ACCOUNTING AND DIS-
7 COUNTING METHODS.—

8 (1) IN GENERAL.—The Administrator, in con-
9 sultation with the Secretary of Agriculture, shall—

10 (A) develop standardized methods for use
11 in accounting for additionality and uncertainty,
12 estimating the baseline, and discounting for
13 leakage for each offset project type listed under
14 section 2403(b); and

15 (B) require that leakage be subtracted
16 from reductions in greenhouse gas emissions or
17 increases in sequestration attributable to a
18 project.

19 (2) ADDITIONALITY DETERMINATION AND
20 BASELINE ESTIMATION.—The standardized methods
21 used to determine additionality and establish base-
22 lines shall, for each project type, at a minimum—

23 (A) in the case of a sequestration project,
24 determine the greenhouse gas flux and carbon

1 stock on comparable land identified on the basis
 2 of—

3 (i) similarity in current management
 4 practices;

5 (ii) similarity of regional, State, or
 6 local policies or programs; and

7 (iii) similarity in geographical and bio-
 8 physical characteristics;

9 (B) in the case of an emission reduction
 10 project, use as a basis emissions from pre-
 11 existing or comparable facilities; and

12 (C) in the case of a sequestration project
 13 or emission reduction project, specify a selected
 14 time period.

15 ~~(3) LEAKAGE.~~—The standardized methods used
 16 to determine and discount for leakage shall, at a
 17 minimum, take into consideration—

18 (A) the scope of the offset system in terms
 19 of activities and geography covered;

20 (B) the markets relevant to the offset
 21 project;

22 (C) emission intensity per unit of produc-
 23 tion, both inside and outside of the offset
 24 project; and

1 (D) a time period sufficient in length to
2 yield a stable leakage rate.

3 (h) ~~UNCERTAINTY FOR AGRICULTURAL AND FOR-~~
4 ~~ESTRY PROJECTS.—~~

5 (1) ~~IN GENERAL.—~~The Administrator, in con-
6 sultation with the Secretary of Agriculture, shall de-
7 velop standardized methods for use in determining
8 and discounting for uncertainty for each offset
9 project type listed under section 2403(b).

10 (2) ~~BASIS.—~~The standardized methods used to
11 determine and discount for uncertainty shall be
12 based on—

13 (A) the robustness and rigor of the meth-
14 ods used by a project developer to monitor and
15 quantify changes in greenhouse gas fluxes or
16 carbon stocks;

17 (B) the robustness and rigor of methods
18 used by a project developer to determine
19 additionality and leakage; and

20 (C) an exaggerated proportional discount
21 that increases relative to uncertainty, as deter-
22 mined by the Administrator, to encourage bet-
23 ter measurement and accounting.

24 (i) ~~ACQUISITION OF NEW DATA AND REVIEW OF~~
25 ~~METHODS FOR AGRICULTURAL AND FORESTRY~~

1 PROJECTS.—The Administrator, in consultation with the
 2 Secretary of Agriculture, shall—

3 (1) establish a comprehensive field sampling
 4 program to improve the scientific bases on which the
 5 standardized tools and methods developed under this
 6 section are based; and

7 (2) review and revise the standardized tools and
 8 methods developed under this section, based on—

9 (A) validation of existing methods, proto-
 10 cols, procedures, techniques, factors, equations,
 11 or models;

12 (B) development of new methods, proto-
 13 cols, procedures, techniques, factors, equations,
 14 or models;

15 (C) increased availability of field data or
 16 other datasets; and

17 (D) any other information identified by the
 18 Administrator, in consultation with the Sec-
 19 retary of Agriculture, that is necessary to meet
 20 the objectives of this subtitle.

21 (j) EXCLUSION.—No activity for which any emission
 22 allowances are received under subtitle G of title III shall
 23 generate offset allowances under this subtitle.

1 **SEC. 2405. OFFSET VERIFICATION AND ISSUANCE OF AL-**
 2 **LOWANCES FOR AGRICULTURAL AND FOR-**
 3 **ESTRY PROJECTS.**

4 (a) IN GENERAL.—Offset allowances may be claimed
 5 for net emission reductions or increases in sequestration
 6 annually, after accounting for any necessary discounts in
 7 accordance with section 2404, by submitting a verification
 8 report for an offset project to the Administrator.

9 (b) OFFSET VERIFICATION.—

10 (1) SCOPE OF VERIFICATION.—A verification
 11 report for an offset project shall—

12 (A) be completed by a verifier accredited in
 13 accordance with paragraph (3); and

14 (B) shall be developed taking into consider-
 15 ation—

16 (i) the information and methodology
 17 contained within a monitoring and quan-
 18 tification plan;

19 (ii) data and subsequent analysis of
 20 the offset project, including—

21 (I) quantification of net emission
 22 reductions or increases in sequestra-
 23 tion;

24 (II) determination of
 25 additionality;

26 (III) calculation of leakage;

- 1 (IV) assessment of permanence;
- 2 (V) discounting for uncertainty;
- 3 and
- 4 (VI) the adjustment of net emis-
- 5 sion reductions or increases in seques-
- 6 tration by the discounts determined
- 7 under clauses (II) through (V); and
- 8 (iii) subject to the requirements of
- 9 this subtitle, any other information identi-
- 10 fied by the Administrator as being nec-
- 11 essary to achieve the purposes of this sub-
- 12 title.

13 (2) VERIFICATION REPORT REQUIREMENTS.—

14 The Administrator shall specify the required compo-

15 nents of a verification report, including—

- 16 (A) the quantity of offsets generated;
- 17 (B) the amount of discounts applied;
- 18 (C) an assessment of methods (and the ap-
- 19 propriateness of those methods);
- 20 (D) an assessment of quantitative errors or
- 21 omissions (and the effect of the errors or omis-
- 22 sions on offsets);
- 23 (E) any potential conflicts of interest be-
- 24 tween a verifier and project developer; and

1 ~~(F)~~ any other provision that the Adminis-
 2 trator considers to be necessary to achieve the
 3 purposes of this subtitle.

4 ~~(3)~~ VERIFIER ACCREDITATION.—

5 ~~(A)~~ IN GENERAL.—Not later than 18
 6 months after the date of enactment of this Act,
 7 the Administrator shall promulgate regulations
 8 establishing a process and requirements for ac-
 9 creditation by a third-party verifier that has no
 10 conflicts of interest.

11 ~~(B)~~ PUBLIC ACCESSIBILITY.—Each verifier
 12 meeting the requirements for accreditation in
 13 accordance with this paragraph shall be listed
 14 in a publicly-accessible database, which shall be
 15 maintained and updated by the Administrator.

16 ~~(c)~~ REGISTRATION AND AWARDING OF OFFSETS.—

17 ~~(1)~~ IN GENERAL.—Not later than 90 days after
 18 the date on which the Administrator receives a com-
 19 plete petition required under section 2404(b), the
 20 Administrator shall—

21 ~~(A)~~ determine whether the offsets satisfy
 22 the applicable requirements of this subtitle; and

23 ~~(B)~~ notify the project developer of that de-
 24 termination.

1 ~~(2) AFFIRMATIVE DETERMINATION.~~—In the
 2 case of an affirmative determination under para-
 3 graph ~~(1)~~, the Administrator shall—

4 ~~(A)~~ register the offset allowances in ac-
 5 cordanance with this subtitle; and

6 ~~(B)~~ issue the offset allowances.

7 ~~(3) APPEAL AND REVIEW.~~—The Administrator
 8 shall establish mechanisms for the appeal and review
 9 of determinations made under this subsection.

10 **SEC. 2406. TRACKING OF REVERSALS FOR SEQUESTRATION**
 11 **PROJECTS.**

12 ~~(a) REVERSAL CERTIFICATION.~~—

13 ~~(1) IN GENERAL.~~—Subject to section 2402, the
 14 Administrator shall promulgate regulations requiring
 15 the submission of a reversal certification for each
 16 offset project on an annual basis following the reg-
 17 istration of offset allowances.

18 ~~(2) REQUIREMENTS.~~—A reversal certification
 19 submitted in accordance with this subsection shall
 20 state—

21 ~~(A)~~ whether any unmitigated reversal re-
 22 lating to the offset project has occurred in the
 23 year preceding the year in which the certifi-
 24 cation is submitted; and

1 ~~(B)~~ the quantity of each unmitigated re-
 2 ~~versal.~~

3 ~~(b) EFFECT ON OFFSET ALLOWANCES.—~~

4 ~~(1) INVALIDITY.—~~The Administrator shall de-
 5 ~~clare invalid all offset allowances issued for any off-~~
 6 ~~set project that has undergone a complete reversal.~~

7 ~~(2) PARTIAL REVERSAL.—~~In the case of an off-
 8 ~~set project that has undergone a partial reversal, the~~
 9 ~~Administrator shall render invalid offset allowances~~
 10 ~~issued for the offset project in direct proportion to~~
 11 ~~the degree of reversal.~~

12 ~~(c) ACCOUNTABILITY FOR REVERSALS.—~~Liability
 13 ~~and responsibility for compensation of a reversal of a reg-~~
 14 ~~istered offset allowance under subsection (a) shall lie with~~
 15 ~~the person that submitted the offset allowance to the Ad-~~
 16 ~~ministrator for the purpose of compliance with section~~
 17 ~~1202(a), unless otherwise specified in a legally-binding~~
 18 ~~contract or agreement.~~

19 ~~(d) COMPENSATION FOR REVERSALS.—~~The unmiti-
 20 ~~gated reversal of 1 or more registered offset allowances~~
 21 ~~shall require the submission of—~~

22 ~~(1) an equal number of offset allowances; or~~

23 ~~(2) a combination of offset allowances and~~
 24 ~~emission allowances equal to the unmitigated rever-~~
 25 ~~sal.~~

1 (e) ~~ADJUSTMENT OF BASELINE.—~~

2 (1) ~~IN GENERAL.—~~If the Administrator deter-
 3 mines that, as a result of activities or behavior that
 4 is inconsistent with the purposes of this subtitle, a
 5 significant deviation exists between the average an-
 6 nual greenhouse gas flux or carbon stock for a given
 7 year pursuant to the certification submitted under
 8 subsection (a), the baseline for that project shall be
 9 adjusted by a quantity equal to the difference be-
 10 tween—

11 (A) the estimated greenhouse gas flux or
 12 carbon stock at the end of the year prior to the
 13 year in which the significant deviation occurred;
 14 and

15 (B) the estimated greenhouse gas flux or
 16 carbon stock at the end of the year in which the
 17 significant deviation occurred.

18 (2) ~~PROJECT TERMINATION.—~~A project devel-
 19 oper may cease participation in the domestic offset
 20 program established under this subtitle at any time,
 21 on the condition that any registered allowances
 22 awarded for increases in sequestration have been
 23 compensated for by the project developer through
 24 the submission of an equal number of offset allow-
 25 ances.

1 **SEC. 2407. EXAMINATIONS.**

2 (a) **REGULATIONS.**—Not later than 2 years after the
3 date of enactment of this Act, the Administrator shall pro-
4 mulgate regulations governing the examination and audit-
5 ing of offset allowances.

6 (b) **REQUIREMENTS.**—The regulations promulgated
7 under this section shall specifically consider—

8 (1) principles for initiating and conducting ex-
9 aminations;

10 (2) the type or scope of examinations, includ-
11 ing—

12 (A) reporting and recordkeeping; and

13 (B) site review or visitation;

14 (3) the rights and privileges of an examined
15 party; and

16 (4) the establishment of an appeal process.

17 **SEC. 2408. TIMING AND THE PROVISION OF OFFSET ALLOW-**
18 **ANCES.**

19 (a) **INITIATION OF OFFSET PROJECTS.**—An offset
20 project that commences operation on or after the effective
21 date of regulations promulgated under section 2407(a)
22 shall be eligible to generate offset allowances under this
23 subtitle if the offset project meets the other applicable re-
24 quirements of this subtitle.

25 (b) **PRE-EXISTING PROJECTS.**—

1 (1) ~~IN GENERAL.~~—The Administrator may
 2 allow for the transition into the Registry of offset
 3 projects and banked offset allowances operating
 4 under other Federal, State, or private reporting pro-
 5 grams or registries as of the effective date of regula-
 6 tions promulgated under section 2407(a) if the Ad-
 7 ministrator determines that the offset projects and
 8 banked offset allowances satisfy the applicable re-
 9 quirements of this subtitle.

10 (2) ~~EXCEPTION.~~—An offset allowance that is
 11 expired, retired, or canceled under any other offset
 12 program, registry, or market as of the effective date
 13 of regulations promulgated under section 2407(a)
 14 shall be ineligible for transition into the Registry.

15 **SEC. 2409. OFFSET REGISTRY.**

16 In addition to the requirements established by section
 17 2404, an offset allowance registered under this subtitle
 18 shall be accompanied in the Registry by—

19 (1) a verification report submitted pursuant to
 20 section 2405(a);

21 (2) a reversal certification submitted pursuant
 22 to section 2406(b); and

23 (3) subject to the requirements of this subtitle,
 24 any other information identified by the Adminis-

1 trator as being necessary to achieve the purposes of
2 this subtitle.

3 **SEC. 2410. ENVIRONMENTAL CONSIDERATIONS.**

4 (a) **COORDINATION TO MINIMIZE NEGATIVE EF-**
5 **FECTS.**—In promulgating regulations under this subtitle,
6 the Administrator, in consultation with the Secretary of
7 Agriculture, shall act (including by rejecting projects, if
8 necessary) to avoid or minimize, to the maximum extent
9 practicable, adverse effects on human health or the envi-
10 ronment resulting from the implementation of offset
11 projects under this subtitle.

12 (b) **REPORT ON POSITIVE EFFECTS.**—Not later than
13 2 years after the date of enactment of this Act, the Admin-
14 istrator, in consultation with the Secretary of Agriculture,
15 shall submit to Congress a report detailing—

16 (1) the incentives, programs, or policies capable
17 of fostering improvements to human health or the
18 environment in conjunction with the implementation
19 of offset projects under this subtitle; and

20 (2) the cost of those incentives, programs, or
21 policies.

22 (c) **USE OF NATIVE PLANT SPECIES IN OFFSET**
23 **PROJECTS.**—Not later than 18 months after the date of
24 enactment of this Act, the Administrator, in consultation
25 with the Secretary of Agriculture, shall promulgate regula-

1 tions for the selection, use, and storage of native and non-
 2 native plant materials—

3 (1) to ensure native plant materials are given
 4 primary consideration, in accordance with applicable
 5 Department of Agriculture guidance for use of na-
 6 tive plant materials;

7 (2) to prohibit the use of Federal- or State-des-
 8 ignated noxious weeds; and

9 (3) to prohibit the use of a species listed by a
 10 regional or State invasive plant council within the
 11 applicable region or State.

12 **SEC. 2411. PROGRAM REVIEW.**

13 Not later than 5 years after the date of enactment
 14 of this Act, and periodically thereafter, the Administrator
 15 shall review and revise, as necessary, the regulations pro-
 16 mulgated under this subtitle.

17 **Subtitle E—International Credits**

18 **SEC. 2501. USE OF INTERNATIONAL ALLOWANCES OR**
 19 **CREDITS.**

20 The owner or operator of a covered facility may sat-
 21 isfy up to 15 percent of the allowance submission require-
 22 ment of the covered facility under section 1202(a) by sub-
 23 mitting allowances or credits obtained on a foreign green-
 24 house gas emissions trading market, on the condition that
 25 the Administrator has certified the market in accordance

1 with the regulations promulgated pursuant to section
2 2502(a).

3 **SEC. 2502. REGULATIONS.**

4 (a) IN GENERAL.—Not later than 2 years after the
5 date of enactment of this Act, the Administrator shall pro-
6 mulgate regulations, taking into consideration protocols
7 adopted in accordance with the United Nations Frame-
8 work Convention on Climate Change, done at New York
9 on May 9, 1992—

10 (1) approving the use under this subtitle of
11 credits from such foreign greenhouse gas emissions
12 trading markets as the regulations may establish;
13 and

14 (2) permitting the use of international credits
15 from the foreign country that issued the credits.

16 (b) REQUIREMENTS.—The regulations promulgated
17 under subsection (a) shall require that, in order to be ap-
18 proved for use under this subtitle—

19 (1) a credit shall have been issued by a foreign
20 country pursuant to a governmental program that
21 imposes mandatory absolute tonnage limits on
22 greenhouse gas emissions from the foreign country;
23 or 1 or more industry sectors in that country, pursu-
24 ant to protocols described in subsection (a); and

1 (2) the governmental program be of comparable
 2 stringency to the program established by this Act,
 3 including comparable monitoring, compliance, and
 4 enforcement.

5 **SEC. 2503. FACILITY CERTIFICATION.**

6 The owner or operator of a covered facility who sub-
 7 mits an international allowance or credit under this sub-
 8 title shall certify that the allowance or credit has not been
 9 retired from use in the registry of the applicable foreign
 10 country.

11 **Subtitle F—Carbon Market**
 12 **Efficiency Board**

13 **SEC. 2601. PURPOSES.**

14 The purposes of this subtitle are—

15 (1) to ensure that the imposition of limits on
 16 greenhouse gas emissions will not significantly harm
 17 the economy of the United States; and

18 (2) to establish a Carbon Market Efficiency
 19 Board to ensure the implementation and mainte-
 20 nance of a stable, functioning, and efficient market
 21 in emission allowances.

1 **SEC. 2602. ESTABLISHMENT OF CARBON MARKET EFFI-**
 2 **CIENCY BOARD.**

3 (a) **ESTABLISHMENT.**—There is established a board,
 4 to be known as the “Carbon Market Efficiency Board”
 5 (referred to in this subtitle as the “Board”).

6 (b) **PURPOSES.**—The purposes of the Board are—

7 (1) to promote the achievement of the purposes
 8 of this Act;

9 (2) to observe the national greenhouse gas
 10 emission market and evaluate periods during which
 11 the cost of emission allowances provided under Fed-
 12 eral law might pose significant harm to the economy;
 13 and

14 (3) to submit to the President and Congress
 15 quarterly reports—

16 (A) describing—

17 (i) the status of the emission allow-
 18 ance market established under this Act;

19 (ii) the economic effects of the mar-
 20 ket, regional, industrial, and consumer re-
 21 sponses to the market;

22 (iii) where practicable, energy invest-
 23 ment responses to the market;

24 (iv) any corrective measures that
 25 should be carried out to relieve excessive
 26 costs of the market; and

1 (v) plans to compensate for those
 2 measures to ensure that the long-term
 3 emission-reduction goals of this Act are
 4 achieved;

5 (B) that are timely and succinct to ensure
 6 regular monitoring of market trends; and

7 (C) that are prepared independently by the
 8 Board.

9 (c) MEMBERSHIP.—

10 (1) COMPOSITION.—The Board shall be com-
 11 posed of 7 members who are citizens of the United
 12 States, to be appointed by the President, by and
 13 with the advice and consent of the Senate.

14 (2) REQUIREMENTS.—In appointing members
 15 of the Board under paragraph (1), the President
 16 shall—

17 (A) ensure fair representation of the finan-
 18 cial, agricultural, industrial, and commercial
 19 sectors, and the geographical regions, of the
 20 United States, and include a representative of
 21 consumer interests; and

22 (B) appoint not more than 1 member from
 23 each such geographical region.

24 (3) COMPENSATION.—

1 (A) IN GENERAL.—A member of the Board
 2 shall be compensated at a rate equal to the
 3 daily equivalent of the annual rate of basic pay
 4 prescribed for level II of the Executive Schedule
 5 under section 5313 of title 5, United States
 6 Code, for each day (including travel time) dur-
 7 ing which the member is engaged in the per-
 8 formance of the duties of the Board.

9 (B) CHAIRPERSON.—The Chairperson of
 10 the Board shall be compensated at a rate equal
 11 to the daily equivalent of the annual rate of
 12 basic pay prescribed for level I of the Executive
 13 Schedule under section 5312 of title 5, United
 14 States Code, for each day (including travel
 15 time) during which the member is engaged in
 16 the performance of the duties of the Board.

17 (4) PROHIBITIONS.—

18 (A) CONFLICTS OF INTEREST.—An indi-
 19 vidual employed by, or holding any official rela-
 20 tionship (including any shareholder) with, any
 21 entity engaged in the generation, transmission,
 22 distribution, or sale of energy; an individual
 23 who has any pecuniary interest in the genera-
 24 tion, transmission, distribution, or sale of en-
 25 ergy; or an individual who has a pecuniary in-

1 terest in the implementation of this Act, shall
 2 not be appointed to the Board under this sub-
 3 section.

4 ~~(B) NO OTHER EMPLOYMENT.—~~A member
 5 of the Board shall not hold any other employ-
 6 ment during the term of service of the member.

7 ~~(d) TERM; VACANCIES.—~~

8 ~~(1) TERM.—~~

9 ~~(A) IN GENERAL.—~~The term of a member
 10 of the Board shall be 14 years, except that the
 11 members first appointed to the Board shall be
 12 appointed for terms in a manner that ensures
 13 that—

14 (i) the term of not more than 1 mem-
 15 ber shall expire during any 2-year period;
 16 and

17 (ii) no member serves a term of more
 18 than 14 years.

19 ~~(B) OATH OF OFFICE.—~~A member shall
 20 take the oath of office of the Board by not later
 21 than 15 days after the date on which the mem-
 22 ber is appointed under subsection (c)(1).

23 ~~(C) REMOVAL.—~~

1 (i) IN GENERAL.—A member may be
 2 removed from the Board on determination
 3 of the President for cause.

4 (ii) NOTIFICATION.—The President
 5 shall submit to Congress a notification of
 6 any determination by the President to re-
 7 move a member of the Board for cause
 8 under clause (i).

9 (2) VACANCIES.—

10 (A) IN GENERAL.—A vacancy on the
 11 Board—

12 (i) shall not affect the powers of the
 13 Board; and

14 (ii) shall be filled in the same manner
 15 as the original appointment was made.

16 (B) SERVICE UNTIL NEW APPOINTMENT.—

17 A member of the Board the term of whom has
 18 expired or otherwise been terminated shall con-
 19 tinue to serve until the date on which a replace-
 20 ment is appointed under subparagraph (A)(ii);
 21 if the President determines that service to be
 22 appropriate.

23 (c) CHAIRPERSON AND VICE-CHAIRPERSON.—Of
 24 members of the Board, the President shall appoint—

1 ~~(1) 1 member to serve as Chairperson of the~~
 2 ~~Board for a term of 4 years; and~~

3 ~~(2) 1 member to serve as Vice-Chairperson of~~
 4 ~~the Board for a term of 4 years.~~

5 ~~(f) MEETINGS.—~~

6 ~~(1) INITIAL MEETING.—The Board shall hold~~
 7 ~~the initial meeting of the Board as soon as prac-~~
 8 ~~ticable after the date on which all members have~~
 9 ~~been appointed to the Board under subsection~~
 10 ~~(e)(1).~~

11 ~~(2) PRESIDING OFFICER.—A meeting of the~~
 12 ~~Board shall be presided over by—~~

13 ~~(A) the Chairperson;~~

14 ~~(B) in any case in which the Chairperson~~
 15 ~~is absent, the Vice-Chairperson; or~~

16 ~~(C) in any case in which the Chairperson~~
 17 ~~and Vice-Chairperson are absent, a chairperson~~
 18 ~~pro tempore, to be elected by the members of~~
 19 ~~the Board.~~

20 ~~(3) QUORUM.—Four members of the Board~~
 21 ~~shall constitute a quorum for a meeting of the~~
 22 ~~Board.~~

23 ~~(4) OPEN MEETINGS.—The Board shall be sub-~~
 24 ~~ject to section 552b of title 5, United States Code~~

1 (commonly known as the “Government in the Sun-
 2 shine Act”).

3 **SEC. 2603. DUTIES.**

4 (a) INFORMATION GATHERING.—

5 (1) AUTHORITY.—The Board shall collect and
 6 analyze relevant market information to promote a
 7 full understanding of the dynamics of the emission
 8 allowance market established under this Act.

9 (2) INFORMATION.—The Board shall gather
 10 such information as the Board determines to be ap-
 11 propriate regarding the status of the market, includ-
 12 ing information relating to—

13 (A) emission allowance allocation and
 14 availability;

15 (B) the price of emission allowances;

16 (C) macro- and micro-economic effects of
 17 unexpected significant increases in emission al-
 18 lowance prices, or shifts in the emission allow-
 19 ance market, should those increases or shifts
 20 occur;

21 (D) economic effect thresholds that could
 22 warrant implementation of cost relief measures
 23 described in section 2604(a) after the initial 2-
 24 year period described in section 2603(d)(2);

1 ~~(E)~~ in the event any cost relief measures
 2 described in section 2604(a) are taken, the ef-
 3 fects of those measures on the market;

4 ~~(F)~~ maximum levels of cost relief measures
 5 that are necessary to achieve avoidance of eco-
 6 nomic harm and preserve achievement of the
 7 purposes of this Act; and

8 ~~(G)~~ the success of the market in promoting
 9 achievement of the purposes of this Act.

10 ~~(b) TREATMENT AS PRIMARY ACTIVITY.—~~

11 ~~(1) IN GENERAL.—~~During the initial 2-year pe-
 12 riod of operation of the Board, information gath-
 13 ering under subsection (a) shall be the primary ac-
 14 tivity of the Board.

15 ~~(2) SUBSEQUENT AUTHORITY.—~~After the 2-
 16 year period described in paragraph (1), the Board
 17 shall assume authority to implement the cost-relief
 18 measures described in section 2604(a).

19 ~~(c) STUDY.—~~

20 ~~(1) IN GENERAL.—~~During the 2-year period be-
 21 ginning on the date on which the emission allowance
 22 market established under this Act begins operation,
 23 the Board shall conduct a study of other markets for
 24 tradeable permits to emit covered greenhouse gases.

1 (2) REPORT.—Not later than 180 days after
 2 the beginning of the period described in paragraph
 3 (1), the Board shall submit to Congress a report de-
 4 scribing the status of the market, specifically with
 5 respect to volatility within the market and the aver-
 6 age price of emission allowances during that 180-day
 7 period.

8 (d) EMPLOYMENT OF COST RELIEF MEASURES.—

9 (1) IN GENERAL.—If the Board determines
 10 that the emission allowance market established
 11 under this Act poses a significant harm to the econ-
 12 omy of the United States, the Board shall carry out
 13 such cost relief measures relating to that market as
 14 the Board determines to be appropriate under sec-
 15 tion 2604(a).

16 (2) INITIAL PERIOD.—During the 2-year period
 17 beginning on the date on which the emission allow-
 18 ance market established under this Act begins oper-
 19 ation, if the Board determines that the average daily
 20 closing price of emission allowances during a 180-
 21 day period exceeds the upper range of the estimate
 22 provided under section 2605, the Board shall—

23 (A) increase the quantity of emission al-
 24 lowances that covered facilities may borrow

1 from the prescribed allocations of the covered
 2 facilities for future years; and

3 ~~(B)~~ take subsequent action as described in
 4 section 2604(a)(2).

5 ~~(3)~~ REQUIREMENTS.—Any action carried out
 6 pursuant to this subsection shall be subject to the
 7 requirements of section 2604(a)(3)(B).

8 ~~(c)~~ REPORTS.—The Board shall submit to the Presi-
 9 dent and Congress quarterly reports—

10 ~~(1)~~ describing the status of the emission allow-
 11 ance market established under this Act, the eco-
 12 nomic effects of the market, regional, industrial, and
 13 consumer responses to the market, energy invest-
 14 ment responses to the market, any corrective meas-
 15 ures that should be carried out to relieve excessive
 16 costs of the market, and plans to compensate for
 17 those measures; and

18 ~~(2)~~ that are prepared independently by the
 19 Board, and not in partnership with Federal agen-
 20 cies.

21 **SEC. 2604. POWERS.**

22 ~~(a)~~ COST RELIEF MEASURES.—

23 ~~(1)~~ IN GENERAL.—Beginning on the day after
 24 the date of expiration of the 2-year period described
 25 in section 2603(b), the Board may carry out 1 or

1 more of the following cost relief measures to ensure
2 functioning, stable, and efficient markets for emis-
3 sion allowances:

4 (A) Increase the quantity of emission al-
5 lowances that covered facilities may borrow
6 from the prescribed allocations of the covered
7 facilities for future years.

8 (B) Expand the period during which a cov-
9 ered facility may repay the Administrator for
10 an emission allowance as described in subpara-
11 graph (A).

12 (C) Lower the interest rate at which an
13 emission allowance may be borrowed as de-
14 scribed in subparagraph (A).

15 (D) Increase the quantity of allowances or
16 credits obtained on a foreign greenhouse gas
17 emissions trading market that the owner or op-
18 erator of any covered facility may use to satisfy
19 the allowance submission requirement of the
20 covered facility under section 1202(a), on the
21 condition that the Administrator has certified
22 the market in accordance with the regulations
23 promulgated pursuant to section 2502(a).

24 (E) Increase the quantity of offset allow-
25 ances generated in accordance with subtitle D

1 that the owner or operator of any covered facil-
 2 ity may use to satisfy the total allowance sub-
 3 mission requirement of the covered facility
 4 under section 1202(a).

5 (F) Expand the total quantity of emission
 6 allowances made available to all covered facili-
 7 ties at any given time by borrowing against the
 8 total allowable quantity of emission allowances
 9 to be provided for future years.

10 (2) SUBSEQUENT ACTIONS.—On determination
 11 by the Board to carry out a cost relief measure pur-
 12 suant to paragraph (1), the Board shall—

13 (A) allow the cost relief measure to be
 14 used only during the applicable allocation year;

15 (B) exercise the cost relief measure incre-
 16 mentally, and only as needed to avoid signifi-
 17 cant economic harm during the applicable allo-
 18 cation year;

19 (C) specify the terms of the relief to be
 20 achieved using the cost relief measure, includ-
 21 ing requirements for entity-level or national
 22 market-level compensation to be achieved by a
 23 specific date or within a specific time period;

24 (D) in accordance with section 2603(e),
 25 submit to the President and Congress a report

1 describing the actions carried out by the Board
 2 and recommendations for the terms under
 3 which the cost relief measure should be author-
 4 ized by Congress and carried out by Federal en-
 5 tities; and

6 (E) evaluate, at the end of the applicable
 7 allocation year, actions that need to be carried
 8 out during subsequent years to compensate for
 9 any cost relief measure carried out during the
 10 applicable allocation year.

11 ~~(3) ACTION ON EXPANSION OF BORROWING.—~~

12 ~~(A) IN GENERAL.—~~If the Board carries
 13 out a cost relief measure pursuant to paragraph
 14 ~~(1)~~ that results in the expansion of borrowing
 15 of emission allowances under this Act, and if
 16 the average daily closing price of emission al-
 17 lowances for the 180-day period beginning on
 18 the date on which borrowing is so expanded ex-
 19 ceeds the upper range of the estimate provided
 20 under section 2605, the Board shall increase
 21 the quantity of emission allowances available for
 22 the applicable allocation year in accordance
 23 with this paragraph.

(B) REQUIREMENTS.—An increase in the quantity of emission allowances under subparagraph (A) shall—

(i) apply to all covered facilities;

(ii) be allocated in accordance with the applicable formulas and procedures established under this Act;

(iii) be equal to not more than 5 percent of the total quantity of emission allowances otherwise available for the applicable allocation year under this Act;

(iv) remain in effect only for the applicable allocation year;

(v) specify the date by which the increase shall be repaid by covered facilities through a proportionate reduction of emission allowances available for subsequent allocation years; and

(vi) require the repayment under clause (v) to be made by not later than the date that is 15 years after the date on which the increase is provided.

(b) ASSESSMENTS.—Not more frequently than semi-annually, the Board may levy on owners and operators of covered facilities, in proportion to the capital stock and

1 surplus of the participants, an assessment sufficient to
 2 pay the estimated expenses of the Board and the salaries
 3 of members of and employees of the Board during the
 4 180-day period beginning on the date on which the assess-
 5 ment is levied, taking into account any deficit carried for-
 6 ward from the preceding 180-day period.

7 (c) LIMITATIONS.—Nothing in this section gives the
 8 Board the authority—

9 (1) to consider or prescribe entity-level petitions
 10 for relief from the costs of an emission allowance al-
 11 location or trading program established under Fed-
 12 eral law;

13 (2) to carry out any investigative or punitive
 14 process under the jurisdiction of any Federal or
 15 State court;

16 (3) to interfere with, modify, or adjust any
 17 emission allowance allocation scheme established
 18 under Federal law; or

19 (4) to modify the total quantity of allowances
 20 issued under this Act for the period of calendar
 21 years 2012 through 2050.

22 **SEC. 2605. ESTIMATE OF COSTS TO ECONOMY OF LIMITING**
 23 **GREENHOUSE GAS EMISSIONS.**

24 Not later than July 1, 2014, the Director of the Con-
 25 gressional Budget Office, using economic and scientific

1 analyses, shall submit to Congress a report that de-
 2 scribes—

3 (1) the projected price range at which emission
 4 allowances are expected to trade during the 2-year
 5 period of the initial greenhouse gas emission market
 6 established under Federal law; and

7 (2) the projected impact of that market on the
 8 economy of the United States.

9 **TITLE III—ALLOCATING AND**
 10 **DISTRIBUTING ALLOWANCES**
 11 **Subtitle A—Early Auctions**

12 **SEC. 3101. ALLOCATION FOR EARLY AUCTIONS.**

13 Not later than 180 days after the date of enactment
 14 of this Act, the Administrator shall allocate 6 percent of
 15 the emission allowances established for calendar year
 16 2012, 4 percent of the emission allowances established for
 17 calendar year 2013, and 2 percent of the emissions estab-
 18 lished for calendar 2014, to the Corporation for early auc-
 19 tioning in accordance with section 4301.

20 **Subtitle B—Annual Auctions**

21 **SEC. 3201. ALLOCATION FOR ANNUAL AUCTIONS.**

22 Not later than January 1, 2012, and annually there-
 23 after through January 1, 2050, the Administrator shall
 24 allocate to the Corporation a percentage of emission allow-

- 1 ances for that calendar year, for annual auctioning, as fol-
- 2 lows:

Calendar Year	Percentage of Emission Allowance Account Allocated to the Corporation
2012	18
2013	21
2014	24
2015	27
2016	28
2017	31
2018	33
2019	35
2020	37
2021	39
2022	41
2023	43
2024	45
2025	47
2026	49
2027	51
2028	53
2029	55
2030	57
2031	59
2032	61
2033	63
2034	65
2035	67

Calendar Year	Percentage of Emission Allowance Account Allocated to the Corporation
2036	73
2037	73
2038	73
2039	73
2040	73
2041	73
2042	73
2043	73
2044	73
2045	73
2046	73
2047	73
2048	73
2049	73
2050	73

Subtitle C—Early Action

SEC. 3301. ALLOCATION.

Not later than 2 years after the date of enactment of this Act, the Administrator shall allocate to owners or operators of covered facilities, in recognition of actions of the owners and operators taken since January 1, 1994, that resulted in verified and credible reductions of greenhouse gas emissions—

(1) 5 percent of the emission allowances established for calendar year 2012;

1 ~~(2) 4 percent of the emission allowances estab-~~
 2 ~~lished for calendar year 2013;~~

3 ~~(3) 3 percent of the emission allowances estab-~~
 4 ~~lished for calendar year 2014;~~

5 (4) 2 percent of the emission allowances estab-
 6 lished for calendar year 2015; and

7 ~~(5) 1 percent of the emission allowances estab-~~
 8 ~~lished for calendar year 2016.~~

9 **SEC. 3302. DISTRIBUTION.**

10 ~~(a) IN GENERAL.—Not later than 1 year after the~~
 11 ~~date of enactment of this Act, the Administrator shall es-~~
 12 ~~tablish, by regulation, procedures and standards for use~~
 13 ~~in distributing, to owners and operators of covered facili-~~
 14 ~~ties, emission allowances allocated under section 3301.~~

15 ~~(b) CONSIDERATION.—The procedures and standards~~
 16 ~~established under subsection (a) shall provide for consider-~~
 17 ~~ation of verified and credible emission reductions reg-~~
 18 ~~istered before the date of enactment of this Act under—~~

19 ~~(1) the Climate Leaders Program, or any other~~
 20 ~~voluntary greenhouse gas reduction program of the~~
 21 ~~United States Environmental Protection Agency and~~
 22 ~~United States Department of Energy;~~

23 (2) the Voluntary Reporting of Greenhouse
 24 Gases Program of the Energy Information Adminis-
 25 tration;

1 ~~(3)~~ State or regional greenhouse gas emission
 2 reduction programs that include systems for track-
 3 ing and verifying the greenhouse gas emission reduc-
 4 tions; and

5 ~~(4)~~ voluntary entity programs that resulted in
 6 entity-wide reductions in greenhouse gas emissions.

7 ~~(c) DISTRIBUTION.—~~Not later than 4 years after the
 8 date of enactment of this Act, the Administrator shall dis-
 9 tribute all emission allowances allocated under section
 10 ~~3301.~~

11 **Subtitle D—States**

12 **SEC. 3401. ALLOCATION FOR ENERGY SAVINGS.**

13 ~~(a) ALLOCATION.—~~Not later than January 1, 2012,
 14 and annually thereafter through January 1, 2050, the Ad-
 15 ministrator shall allocate 1 percent of the Emission Allow-
 16 ance Account among States that—

17 ~~(1)~~ have adopted regulations by not later than
 18 the date on which the allowance allocations are
 19 made; that subject regulated natural gas and electric
 20 utilities that deliver gas or electricity in the State to
 21 regulations that—

22 ~~(A)~~ automatically adjust the rates charged
 23 by natural gas and electric utilities to fully re-
 24 cover fixed costs of service without regard to
 25 whether their actual sales are higher or lower

1 than the forecast of sales on which the tariffed
2 rates were based; and

3 ~~(B) make cost-effective energy-efficiency~~
4 investments by investor-owned natural gas or
5 electric utilities at least as rewarding to their
6 shareholders, on a risk-adjusted basis for the
7 equity capital invested, as power or energy pur-
8 chases, or investments in new energy supplies
9 or infrastructure; and

10 ~~(2) have adopted, or whose political subdivisions~~
11 have adopted, regulations by not later than the date
12 on which allocations are made, that are as stringent
13 as, or more stringent than, the most recent energy
14 performance requirements of ASHRAE 90.1 and the
15 International Energy Conservation Code for new
16 buildings.

17 ~~(b) ALLOCATION FOR BUILDING EFFICIENCY.—Not~~
18 later than January 1, 2012, and annually thereafter
19 through January 1, 2050, the Administrator shall allocate
20 1 percent of the Emission Allowance Account among
21 States that are in compliance with section 304(c)(3) of
22 the Energy Conservation and Production Act (as amended
23 by section 5201).

24 ~~(c) DISTRIBUTION.—Not later than 2 years after the~~
25 date of enactment of this Act, the Administrator shall es-

1 tablish procedures and standards for the distribution of
 2 emission allowances to States in accordance with sub-
 3 sections (a) and (b).

4 (d) USE.—Any State receiving emission allowances
 5 under this section for a calendar year shall retire or use,
 6 in 1 or more of the ways described in section 3403(e)(1),
 7 not less than 90 percent of the emission allowances allo-
 8 cated to the State (or proceeds of the sale of those allow-
 9 ances) under this section for the calendar year.

10 **SEC. 3402. ALLOCATION FOR STATES WITH PROGRAMS**
 11 **THAT EXCEED FEDERAL EMISSION REDUC-**
 12 **TION TARGETS.**

13 (a) ALLOCATION.—Not later than January 1, 2012,
 14 and annually thereafter through January 1, 2050, the Ad-
 15 ministrator shall allocate 2 percent of the Emission Allow-
 16 ance Account for the year among States that have—

17 (1) before the date of enactment of this Act, en-
 18 acted statewide greenhouse gas emission reduction
 19 targets that are more stringent than the nationwide
 20 targets established under title II; and

21 (2) by the time of an allocation under this sub-
 22 section, imposed on covered facilities within the
 23 States aggregate greenhouse gas emission limitations
 24 more stringent than those imposed on covered facili-
 25 ties under title II.

1 (b) DISTRIBUTION.—Not later than 2 years after the
 2 date of enactment of this Act, the Administrator shall es-
 3 tablish procedures and standards for use in distributing
 4 emission allowances among States in accordance with sub-
 5 section (a).

6 (c) USE.—Any State receiving emission allowances
 7 under this section for a calendar year shall retire or use,
 8 in 1 or more of the ways described in section 3403(c)(1),
 9 not less than 90 percent of the emission allowances allo-
 10 cated to the State (or proceeds of the sale of those allow-
 11 ances) under this section for the calendar year.

12 **SEC. 3403. GENERAL ALLOCATION.**

13 (a) ALLOCATION.—Subject to subsection (d)(3), not
 14 later than January 1, 2012, and annually thereafter
 15 through January 1, 2050, the Administrator shall allocate
 16 5 percent of the Emission Allowance Account for the year
 17 among States.

18 (b) DISTRIBUTION.—The allowances available for al-
 19 location to States under subsection (a) for a calendar year
 20 shall be distributed as follows:

21 (1) For each calendar year, $\frac{1}{3}$ of the quantity
 22 of allowances available for allocation to States under
 23 subsection (a) shall be allocated among individual
 24 States based on the proportion that—

1 (A) the expenditures of a State for the
 2 low-income home energy assistance program es-
 3 tablished under the Low-Income Home Energy
 4 Assistance Act of 1981 (42 U.S.C. 8621 et
 5 seq.) for the preceding calendar year; bears to

6 (B) the expenditures of all States for that
 7 program for the preceding calendar year.

8 (2) For each calendar year, $\frac{1}{3}$ of the quantity
 9 of allowances available for allocation to States under
 10 subsection (a) shall be allocated among the States
 11 based on the proportion that—

12 (A) the population of a State, as deter-
 13 mined by the most recent decennial census pre-
 14 ceding the calendar year for which the alloca-
 15 tion regulations are for the allocation year;
 16 bears to

17 (B) the population of all States, as deter-
 18 mined by that census.

19 (3) For each calendar year, $\frac{1}{3}$ of the quantity
 20 of allowances available for allocation to States under
 21 subsection (a) shall be allocated among the States
 22 based on the proportion that—

23 (A) the quantity of carbon dioxide that
 24 would be emitted assuming that all of the coal
 25 that is mined, natural gas that is processed,

and petroleum that is refined within the boundaries of a State during the preceding year is completely combusted and that none of the carbon dioxide emissions are captured, as determined by the Secretary of Energy, bears to

(B) the aggregate quantity of carbon dioxide that would be emitted assuming that all of the coal that is mined, natural gas that is processed, and petroleum that is refined in all States for the preceding year is completely combusted and that none of the carbon dioxide emissions are captured, as determined by the Secretary of Energy.

(c) USE.—

(1) IN GENERAL.—During any calendar year, a State shall retire or use in 1 or more of the following ways not less than 90 percent of the allowances allocated to the State (or proceeds of sale of those emission allowances) under this section for that calendar year:

(A) To mitigate impacts on low-income energy consumers.

(B) To promote energy efficiency (including support of electricity and natural gas de-

1 mand reduction, waste minimization, and recycling programs).

2
3 (C) To promote investment in nonemitting
4 electricity generation technology.

5 (D) To improve public transportation and
6 passenger rail service and otherwise promote reductions in vehicle miles traveled.

7
8 (E) To encourage advances in energy technology that reduce or sequester greenhouse gas
9 emissions.

10
11 (F) To address local or regional impacts of
12 climate change, including the relocation of communities displaced by the impacts of climate
13 change.

14
15 (G) To mitigate obstacles to investment by
16 new entrants in electricity generation markets
17 and energy-intensive manufacturing sectors.

18 (H) To address local or regional impacts of
19 climate change policy, including providing assistance to displaced workers.

20
21 (I) To mitigate impacts on energy-intensive
22 industries in internationally competitive markets.

23
24 (J) To reduce hazardous fuels, and to prevent and suppress wildland fire.

1 ~~(K)~~ To fund rural, municipal, and agricul-
 2 tural water projects that are consistent with the
 3 sustainable use of water resources.

4 ~~(2) DEADLINE.~~—A State shall distribute or sell
 5 allowances for use in accordance with paragraph ~~(1)~~
 6 by not later than 1 year before the beginning of each
 7 allowance allocation year.

8 ~~(3) RETURN OF ALLOWANCES.~~—Not later than
 9 330 days before the beginning of each allowance al-
 10 location year, a State shall return to the Adminis-
 11 trator any allowances not distributed by the deadline
 12 under paragraph ~~(2)~~.

13 ~~(d) PROGRAM FOR TRIBAL COMMUNITIES.~~—

14 ~~(1) ESTABLISHMENT.~~—Not later than 3 years
 15 after the date of enactment of this Act, the Adminis-
 16 trator, in consultation with the Secretary of the In-
 17 terior, shall by regulation establish a program for
 18 tribal communities—

19 ~~(A)~~ that is designed to deliver assistance to
 20 tribal communities within the United States
 21 that face disruption or dislocation as a result of
 22 global climate change; and

23 ~~(B)~~ under which the Administrator shall
 24 distribute 0.5 percent of the Emission Allow-
 25 ance Account for each calendar among tribal

1 governments of the tribal communities de-
 2 scribed in subparagraph (A).

3 ~~(2) ALLOCATION.~~—Beginning in the first cal-
 4 endar year that begins after promulgation of the
 5 regulations referred to in paragraph (1), and annu-
 6 ally thereafter until calendar year 2050, the Admin-
 7 istrator shall allocate 0.5 percent of the Emission
 8 Allowance Account for each calendar year to the
 9 program established under paragraph (1).

10 ~~(3) ALLOCATIONS TO STATES.~~—For each cal-
 11 endar year for which the Administrator allocates 0.5
 12 percent of the Emission Allowance Account to the
 13 program established under paragraph (1), the gen-
 14 eral allocation for States under subsection (a) shall
 15 be 4.5 percent of the Emission Allowance Account.

16 **Subtitle E—Electricity Consumers**

17 **SEC. 3501. ALLOCATION.**

18 Not later than April 1, 2012, and annually thereafter
 19 through January 1, 2050, the Administrator shall allocate
 20 among load-serving entities 10 percent of the Emission Al-
 21 lowance Account for the year.

22 **SEC. 3502. DISTRIBUTION.**

23 (a) IN GENERAL.—For each calendar year, the emis-
 24 sion allowances allocated under section 3501 shall be dis-

1 tributed by the Administrator to each load-serving entity
 2 based on the proportion that—

3 (1) the quantity of electricity delivered by the
 4 load-serving entity during the 3 calendar years pre-
 5 ceding the calendar year for which the emission al-
 6 lowances are distributed, adjusted upward for elec-
 7 tricity not delivered as a result of consumer energy-
 8 efficiency programs implemented by the load-serving
 9 entity and verified by the regulatory agency of the
 10 load-serving entity; bears to

11 (2) the total quantity of electricity delivered by
 12 all load-serving entities during those 3 calendar
 13 years.

14 (b) BASIS.—The Administrator shall base the deter-
 15 mination of the quantity of electricity delivered by a load-
 16 serving entity for the purpose of subsection (a) on the
 17 most recent data available in annual reports filed with the
 18 Energy Information Administration of the Department of
 19 Energy

20 **SEC. 3503. USE.**

21 (a) IN GENERAL.—Any load-serving entity that ac-
 22 cepts emission allowances distributed under section 3502
 23 shall—

1 (1) sell each emission allowance distributed to
2 the load-serving entity by not later than 1 year after
3 receiving the emission allowance; and

4 (2) pursue fair market value for each emission
5 allowance sold in accordance with paragraph (1).

6 (b) PROCEEDS.—All proceeds from the sale of emis-
7 sion allowances under subsection (a) shall be used solely—

8 (1) to mitigate economic impacts on low- and
9 middle-income energy consumers, including by re-
10 ducing transmission charges or issuing rebates; and

11 (2) to promote energy efficiency on the part of
12 energy consumers.

13 (c) INCLUSION IN RETAIL RATES.—To facilitate the
14 prompt pass-through of the benefits from the sale of emis-
15 sion allowances to retail customers—

16 (1) any credit from the sale of allowances shall
17 be reflected in the retail rates of a load-serving enti-
18 ty not later than 90 days after the sale of the allow-
19 ances;

20 (2) the load-serving entity shall not be required
21 to file a retail rate case in order to pass through the
22 credit; and

23 (3) the amount of the credit shall not be subject
24 to review by any State regulatory authority.

1 (d) PROHIBITION ON REBATES.—No load-serving en-
2 tity may use any proceeds from the sale of emission allow-
3 ances under subsection (a) to provide to any consumer a
4 rebate that is based on the quantity of electricity used by
5 the consumer.

6 **SEC. 3504. REPORTING.**

7 (a) IN GENERAL.—Each load-serving entity that ac-
8 cepts emission allowances distributed under section 3502
9 shall, for each calendar year for which the load-serving
10 entity accepts emission allowances, submit to the Adminis-
11 trator a report describing—

12 (1) the date of each sale of each emission allow-
13 ance during the preceding year;

14 (2) the amount of revenue generated from the
15 sale of emission allowances during the preceding
16 year; and

17 (3) how, and to what extent, the load-serving
18 entity used the proceeds of the sale of the emission
19 allowances during the preceding year.

20 (b) AVAILABILITY OF REPORTS.—The Administrator
21 shall make available to the public all reports submitted
22 by any load-serving entity under subsection (b), including
23 by publishing those reports on the Internet.

1 **Subtitle F—Bonus Allowances for**
2 **Carbon Capture and Geological**
3 **Sequestration**

4 **SEC. 3601. ALLOCATION.**

5 (a) ~~IN GENERAL.~~—Not later than 3 years after the
6 date of enactment of this Act, the Administrator shall—

7 (1) ~~establish a Bonus Allowance Account; and~~

8 (2) ~~allocate 4 percent of the emission allow-~~
9 ~~ances established for calendar years 2012 through~~
10 ~~2035 to the Bonus Allowance Account.~~

11 (b) ~~INITIAL NUMBER OF ALLOWANCES.~~—As of Janu-
12 ~~ary 1, 2012, there shall be 3,932,160,000 emission allow-~~
13 ~~ances in the Bonus Allowance Account.~~

14 **SEC. 3602. QUALIFYING PROJECTS.**

15 To be eligible to receive emission allowances under
16 this subtitle, a carbon capture and sequestration project
17 shall—

18 (1) ~~comply with such criteria and procedures as~~
19 ~~the Administrator may establish, including a re-~~
20 ~~quirement for a minimum of an 85-percent capture~~
21 ~~rate for carbon dioxide emissions on an annual basis~~
22 ~~from any unit for which allowances are allocated;~~

23 (2) ~~sequester in a geological formation per-~~
24 ~~mitted by the Administrator for that purpose in ac-~~
25 ~~cordance with regulations promulgated under section~~

1 1421(d) of the Safe Drinking Water Act (42 U.S.C.
 2 300h(d)) carbon dioxide resulting from electric
 3 power generation; and
 4 (3) have begun operation during the period be-
 5 ginning on January 1, 2008, and ending on Decem-
 6 ber 31, 2035.

7 **SEC. 3603. DISTRIBUTION.**

8 Subject to section 3604, for each of calendar years
 9 2012 through 2039, the Administrator shall distribute
 10 emission allowances from the Bonus Allowance Account
 11 to each qualifying project under this subtitle in a quantity
 12 equal to the product obtained by multiplying the number
 13 of metric tons of carbon dioxide geologically sequestered
 14 by the project and the bonus allowance rate for that cal-
 15 endar year, as provided in the following table:

Year	Bonus Allowance Rate
2012	4.5
2013	4.5
2014	4.5
2015	4.5
2016	4.5
2017	4.5
2018	4.2
2019	3.9
2020	3.6
2021	3.3
2022	3.0
2023	2.7
2024	2.4
2025	2.1
2026	1.8
2027	1.5
2028	1.3
2029	1.1
2030	0.9
2031	0.7

Year	Bonus Allowance Rate
2032	0.5
2033	0.5
2034	0.5
2035	0.5
2036	0.5
2037	0.5
2038	0.5
2039	0.5

1 **SEC. 3604. 10-YEAR LIMIT.**

2 A qualifying project may receive annual emission al-
 3 lowances under this subsection only for—

4 (1) the first 10 years of operation; or

5 (2) if the unit covered by the qualifying project
 6 began operating before January 1, 2012, the period
 7 of calendar years 2012 through 2021.

8 **SEC. 3605. EXHAUSTION OF BONUS ALLOWANCE ACCOUNT.**

9 If, at the beginning of a calendar year, the Adminis-
 10 trator determines that the number of emission allowances
 11 remaining in the Bonus Allowance Account will be insuffi-
 12 cient to allow the distribution, in that calendar year, of
 13 the number of allowances that otherwise would be distrib-
 14 uted under section 3603 for the calendar year, the Admin-
 15 istrator shall, for the calendar year—

16 (1) distribute the remaining bonus allowances
 17 only to qualifying projects that were already quali-
 18 fying projects during the preceding calendar year;

19 (2) distribute the remaining bonus allowances
 20 to those qualifying projects on a pro rata basis; and

1 ~~(3)~~ discontinue the program established under
 2 this subtitle as of the date on which the Bonus Al-
 3 lowance Account is projected to be fully used based
 4 on projects already in operation.

5 **Subtitle G—Domestic Agriculture**
 6 **and Forestry**

7 ~~SEC. 3701. ALLOCATION.~~

8 Not later than January 1, 2012, and annually there-
 9 after through January 1, 2050, the Administrator shall
 10 allocate to the Secretary of Agriculture 5 percent of the
 11 Emission Allowance Account for the calendar year for use
 12 in—

13 (1) reducing greenhouse gas emissions from the
 14 agriculture and forestry sectors of the United States
 15 economy; and

16 ~~(2) increasing greenhouse gas sequestration~~
 17 ~~from those sectors.~~

18 ~~SEC. 3702. AGRICULTURAL AND FORESTRY GREENHOUSE~~
 19 ~~GAS MANAGEMENT RESEARCH.~~

20 ~~(a) REPORT.—~~Not later than 1 year after the date
 21 of enactment of this Act, the Secretary of Agriculture, in
 22 consultation with scientific and agricultural and forestry
 23 experts, shall prepare and submit to Congress a report
 24 that describes the status of research on agricultural and

1 forestry greenhouse gas management, including a descrip-
 2 tion of—

3 (1) research on soil carbon sequestration and
 4 other agricultural and forestry greenhouse gas man-
 5 agement that has been carried out;

6 (2) any additional research that is necessary;

7 (3) the proposed priority for additional re-
 8 search;

9 (4) the most appropriate approaches for con-
 10 ducting the additional research; and

11 (5) the manner in which carbon credits that are
 12 specific to agricultural and forestry operations
 13 should be valued and allotted.

14 (b) STANDARDIZED SYSTEM OF SOIL CARBON MEAS-
 15 UREMENT AND CERTIFICATION FOR THE AGRICULTURAL
 16 AND FORESTRY SECTORS.—

17 (1) IN GENERAL.—As soon as practicable after
 18 the date of enactment of this Act, the Secretary of
 19 Agriculture shall establish a standardized system of
 20 carbon measurement and certification for the agri-
 21 cultural and forestry sectors.

22 (2) ADMINISTRATION.—In establishing the sys-
 23 tem, the Secretary of Agriculture shall—

1 (A) create a standardized system of meas-
 2 urements for agricultural and forestry green-
 3 house gases; and

4 (B) delineate the most appropriate system
 5 of certification of credit by public or private en-
 6 tities.

7 (c) **RESEARCH.**—After the date of submission of the
 8 report described in paragraph (1), the President and the
 9 Secretary of Agriculture (in collaboration with the member
 10 institutions of higher education of the Consortium for Ag-
 11 ricultural Soil Mitigation of Greenhouse Gases, institu-
 12 tions of higher education, and research entities) shall ini-
 13 tiate a program to conduct any additional research that
 14 is necessary.

15 **SEC. 3703. DISTRIBUTION.**

16 Taking into account the report prepared under sub-
 17 section 3702(a), the Secretary of Agriculture shall estab-
 18 lish, by regulation, a program under which agricultural
 19 and forestry sequestration allowances may be distributed
 20 to entities that carry out sequestration projects on agricul-
 21 tural and forest land that achieve long-term greenhouse
 22 gas emission mitigation benefits.

1 **Subtitle H—International Forest**
2 **Protection**

3 **SEC. 3801. FINDINGS.**

4 Congress finds that—

5 (1) land-use change and forest sector emissions
6 account for approximately 20 percent of global
7 greenhouse gas emissions;

8 (2) land conversion and deforestation are 2 of
9 the largest sources of greenhouse gas emissions in
10 the developing world, amounting to roughly 40 per-
11 cent of the total greenhouse gas emissions of the de-
12 veloping world;

13 (3) with sufficient data, deforestation rates and
14 forest carbon stocks can be measured with an ac-
15 ceptable level of uncertainty; and

16 (4) encouraging reduced deforestation and
17 other forest carbon activities in other countries
18 can—

19 (A) provide critical leverage to encourage
20 voluntary developing country participation in
21 emission limitation regimes;

22 (B) facilitate greater overall reductions in
23 greenhouse gas emissions than would otherwise
24 be practicable; and

1 (C) substantially benefit biodiversity, con-
 2 servation, and indigenous and other forest-de-
 3 pendent people in developing countries.

4 **SEC. 3802. DEFINITION OF FOREST CARBON ACTIVITIES.**

5 In this subtitle, the term “forest carbon activities”
 6 means—

- 7 (1) activities directed at reducing greenhouse
 8 gas emissions from deforestation and forest degrada-
 9 tion in countries other than the United States; and
 10 (2) activities directed at increasing sequestra-
 11 tion of carbon through restoration of forests, and de-
 12 graded land in countries other than the United
 13 States that has not been forested prior to restora-
 14 tion, afforestation, and improved forest manage-
 15 ment, that meet the eligibility requirements promul-
 16 gated under section 3804(a).

17 **SEC. 3803. ALLOCATION.**

18 Not later than January 1, 2012, and annually there-
 19 after through January 1, 2050, the Administrator shall
 20 allocate and distribute 3 percent of the Emission Allow-
 21 ance Account for the calendar year for use in carrying out
 22 forest carbon activities in countries other than the United
 23 States.

1 **SEC. 3804. DEFINITION AND ELIGIBILITY REQUIREMENTS.**

2 (a) **ELIGIBILITY REQUIREMENTS FOR FOREST CAR-**
3 **BON ACTIVITIES.**—Not later than 2 years after the date
4 of enactment of this Act, the Administrator, in consulta-
5 tion with the Secretary of the Interior, the Secretary of
6 State, and the Secretary of Agriculture, shall promulgate
7 eligibility requirements for forest carbon activities directed
8 at sequestration of carbon through restoration of forests
9 and degraded land, afforestation, and improved forest
10 management in countries other than the United States,
11 including requirements that those activities be—

12 (1) carried out and managed in accordance with
13 widely-accepted environmentally sustainable forestry
14 practices; and

15 (2) designed—

16 (A) to promote native species and restora-
17 tion of native forests, where practicable; and

18 (B) to avoid the introduction of invasive
19 nonnative species.

20 (b) **QUALITY CRITERIA FOR FOREST CARBON ALLO-**
21 **CATIONS.**—Not later than 2 years after the date of enact-
22 ment of this Act, the Administrator, in consultation with
23 the Secretary of the Interior, the Secretary of State, and
24 the Secretary of Agriculture, shall promulgate regulations
25 establishing the requirements for eligibility to receive al-
26 lowances under this section, including requirements that

1 ensure that the emission reductions or sequestrations are
 2 real, permanent, additional, and verifiable, with reliable
 3 measuring and monitoring and appropriate accounting for
 4 leakage.

5 **SEC. 3805. INTERNATIONAL FOREST CARBON ACTIVITIES.**

6 (a) IN GENERAL.—The Administrator, in consulta-
 7 tion with the Secretary of State, shall identify and periodi-
 8 cally update a list of countries that have—

9 (1) demonstrated capacity to participate in
 10 international forest carbon activities, including—

11 (A) sufficient historical data on changes in
 12 national forest carbon stocks;

13 (B) technical capacity to monitor and
 14 measure forest carbon fluxes with an acceptable
 15 level of uncertainty; and

16 (C) institutional capacity to reduce emis-
 17 sions from deforestation and degradation;

18 (2) capped greenhouse gas emissions or other-
 19 wise established a national emission reference sce-
 20 nario based on historical data; and

21 (3) commenced an emission reduction program
 22 for the forest sector.

23 (b) CREDITING AND ADDITIONALITY.—

24 (1) REDUCTION IN DEFORESTATION AND FOR-
 25 EST DEGRADATION.—A verified reduction in green-

house gas emissions from deforestation and forest degradation under a cap or from a nationwide emissions reference scenario described in subsection (a) shall be—

(A) eligible for crediting; and

(B) considered to satisfy the additionality criterion.

(2) PERIODIC REVIEW OF NATIONAL LEVEL REDUCTIONS IN DEFORESTATION AND DEGRADATION.—The Administrator, in consultation with the Secretary of State, shall identify and periodically update a list of countries described in subsection (a) that have—

(A) achieved national-level reductions of deforestation and degradation below a historical reference scenario, taking into consideration the average annual deforestation and degradation rates of the country and of all countries during a period of at least 5 years; and

(B) demonstrated those reductions using remote sensing technology that meets international standards.

(3) OTHER FOREST CARBON ACTIVITIES.—A forest carbon activity, other than a reduction in deforestation or forest degradation, shall be eligible for

1 crediting, subject to the quality criteria for forest
2 carbon credits identified in this Act or in regulations
3 promulgated under this Act.

4 (c) **RECOGNITION OF CREDITS.**—With respect to
5 countries other than countries described in subsection (a),
6 the Administrator—

7 (1) shall recognize credits from forest carbon
8 activities, subject to the quality criteria for forest
9 carbon credits identified in this Act and regulations
10 promulgated under this Act; and

11 (2) is encouraged to identify other incentives,
12 including economic and market-based incentives; to
13 encourage developing countries with largely-intact
14 native forests to protect those forests.

15 **SEC. 3806. REVIEWS AND DISCOUNT.**

16 (a) **REVIEWS.**—Not later than 3 years after the date
17 of enactment of this Act, and 5 years thereafter, the Ad-
18 ministrator shall conduct a review of the credit program
19 under this subtitle.

20 (b) **DISCOUNT.**—If, after the date that is 10 years
21 after the date of enactment of this Act, the Administrator
22 determines that foreign countries that, in the aggregate,
23 generate greenhouse gas emissions accounting for more
24 than 0.5 percent of global greenhouse gas emissions have
25 not capped those emissions, established emissions ref-

1 erence scenarios based on historical data, or otherwise re-
 2 duced total forest emissions, the Administrator may apply
 3 a discount to forest carbon credits imported into the
 4 United States from those countries.

5 **Subtitle I—Covered Facilities**

6 **SEC. 3901. ALLOCATION.**

7 Not later than April 1, 2012, and annually thereafter
 8 through January 1, 2035, the Administrator shall allocate
 9 percentages of the Emission Allowance Account for the
 10 calendar year to owners or operators of covered facilities
 11 within the electric power sector and the industrial sector,
 12 as follows:

Calendar	Percentage of Emission Allowance Account Allo- cated to the Electric Power Sector	Percentage of Emission Allowance Account Allo- cated to the Industrial Sector
2012	20	20
2013	20	20
2014	20	20
2015	20	20
2016	20	20
2017	19	19
2018	18	18
2019	17	17
2020	16	16
2021	15	15
2022	14	14
2023	13	13
2024	12	12
2025	11	11
2026	10	10

Calendar	Percentage of Emission Allowance Account Allocated to the Electric Power Sector	Percentage of Emission Allowance Account Allocated to the Industrial Sector
2027	9	9
2028	8	8
2029	7	7
2030	6	6
2031	5	5
2032	4	4
2033	3	3
2034	2	2
2035	1	1

1 **SEC. 3902. DISTRIBUTION SYSTEM.**

2 Not later than 1 year after the date of enactment
3 of this Act, the Administrator shall establish a system for
4 distributing to covered facilities within the electric power
5 and industrial sectors the emission allowances allocated
6 under section 3901.

7 **SEC. 3903. DISTRIBUTING EMISSION ALLOWANCES WITHIN**
8 **THE ELECTRIC POWER SECTOR.**

9 (a) **NEW ENTRANTS.—**

10 (1) **IN GENERAL.—**As part of the system estab-
11 lished under section 3902, the Administrator shall,
12 for each calendar year, set aside, from the quantity
13 of emission allowances represented by the percent-
14 ages described in the table contained in section 3901
15 for the electric power sector, a quantity of emission

allowances for distribution to new entrant covered electric power sector facilities.

~~(2)~~ CALCULATION OF ALLOWANCES.—The quantity of emission allowances distributed by the Administrator for a calendar year to a new covered electric power sector facility under paragraph ~~(1)~~ shall be equal to the product obtained by multiplying—

~~(A)~~ the average greenhouse gas emission rate of all covered electric power sector facilities that commenced operations during the 5 years preceding the date of enactment of this Act; and

~~(B)~~ the electricity generated by the facility during the calendar year, adjusted downward on a pro rata basis for each new facility in the event that insufficient allowances are available under section 3901 for a calendar year.

~~(b)~~ FACILITIES OWNED BY A RURAL ELECTRIC CO-OPERATIVE.—

~~(1)~~ IN GENERAL.—As part of the system established under section 3902, the Administrator shall, for each calendar year, set aside, from the quantity of emission allowances represented by the percentages described in the table contained in section 3901

1 for the electric power sector; a quantity of emission
2 allowances for distribution to covered electric power
3 sector facilities that are owned or operated by a
4 rural electric cooperative.

5 (2) CALCULATION OF ALLOWANCES.—The
6 quantity of emission allowances distributed by the
7 Administrator in a calendar year under paragraph
8 (1) to a covered electric power sector facility that is
9 owned or operated by a rural electric cooperative
10 shall be equal to the quantity of carbon dioxide
11 equivalents that the covered electric power sector fa-
12 cility emitted during calendar year 2006.

13 (c) INCUMBENTS.—

14 (1) IN GENERAL.—As part of the system estab-
15 lished under section 3902, the Administrator shall,
16 for each calendar year, distribute to covered electric
17 power sector facilities (other than facilities owned or
18 operated by a rural electric cooperative) that were
19 operating during the calendar year preceding the
20 year in which this Act was enacted the emission al-
21 lowances represented by the percentages described in
22 the table contained in section 3901 for the electric
23 power sector that remain after the distribution of
24 emission allowances under subsections (a) and (b).

1 (2) CALCULATION OF ALLOWANCES.—The
 2 quantity of emission allowances distributed to a cov-
 3 ered electric power sector facility under paragraph
 4 (1) shall be equal to the product obtained by multi-
 5 plying—

6 (A) the quantity of emission allowances
 7 available for distribution under paragraph (1);
 8 and

9 (B) the quotient obtained by dividing—

10 (i) the annual average quantity of car-
 11 bon dioxide equivalents emitted by the cov-
 12 ered electric power sector facility during
 13 the 3 calendar years preceding the date of
 14 enactment of this Act; by

15 (ii) the annual average of the aggre-
 16 gate quantity of carbon dioxide equivalents
 17 emitted by all covered electric power sector
 18 facilities during those 3 calendar years.

19 **SEC. 3904. DISTRIBUTING EMISSION ALLOWANCES WITHIN**
 20 **THE INDUSTRIAL SECTOR.**

21 (a) NEW ENTRANTS.—

22 (1) IN GENERAL.—As part of the system estab-
 23 lished under section 3902, the Administrator shall,
 24 for each calendar year, set aside, from the quantity
 25 of emission allowances represented by the percent-

1 ages described in the table contained in section 3901
2 for the industrial sector, a quantity of emission al-
3 lowances for distribution to new entrant covered in-
4 dustrial sector facilities.

5 (2) CALCULATION OF ALLOWANCES.—The
6 quantity of emission allowances distributed by the
7 Administrator in a calendar year to a new covered
8 industrial sector facility under paragraph (1) shall
9 be calculated pursuant to such formula as shall be
10 established under the system established under sec-
11 tion 3902.

12 (b) INCUMBENTS.—

13 (1) IN GENERAL.—As part of the system estab-
14 lished under section 3902, the Administrator shall,
15 for each calendar year, distribute to covered indus-
16 trial sector facilities that were operating during the
17 calendar year preceding the year in which this Act
18 was enacted the emission allowances represented by
19 the percentages described in the table contained in
20 section 3901 for the industrial sector that remain
21 after the distribution of emission allowances under
22 subsection (a).

23 (2) CALCULATION OF ALLOWANCES.—The
24 quantity of emission allowances distributed to a cov-
25 ered industrial sector facility under paragraph (1)

1 shall be equal to the product obtained by multi-
 2 plying—

3 (A) the quantity of emission allowances
 4 available for distribution under paragraph (1);
 5 and

6 (B) the quotient obtained by dividing—

7 (i) the annual average quantity of car-
 8 bon dioxide equivalents emitted by the cov-
 9 ered industrial sector facility during the 3
 10 calendar years preceding the date of enact-
 11 ment of this Act; by

12 (ii) the annual average of the aggre-
 13 gate quantity of carbon dioxide equivalents
 14 emitted by all covered industrial sector fa-
 15 cilities during those 3 calendar years.

16 (c) REVOCATION OF DISTRIBUTION UPON FACILITY
 17 SHUTDOWN.—If a covered facility within the industrial
 18 sector receives a distribution of emission allowances under
 19 this section for a calendar year and is subsequently perma-
 20 nently shut down during that calendar year, the owner or
 21 operator of the facility shall promptly return to the Ad-
 22 ministrator a number of emission allowances equal to the
 23 difference between—

1 (1) the number of carbon dioxide equivalents
2 emitted by the facility in that calendar year prior to
3 the shutdown; and

4 (2) the number of emission allowances distrib-
5 uted to the facility by the Administrator for that cal-
6 endar year.

7 **TITLE IV—AUCTIONS AND USES**
8 **OF AUCTION PROCEEDS**
9 **Subtitle A—Funds**

10 **SEC. 4101. ESTABLISHMENT.**

11 There are established in the Treasury of the United
12 States the following funds:

13 (1) The Energy Assistance Fund.

14 (2) The Climate Change Worker Training
15 Fund.

16 (3) The Adaptation Fund.

17 (4) The Climate Change and National Security
18 Fund.

19 **SEC. 4102. AMOUNTS IN FUNDS.**

20 Each Fund established by section 4101 shall consist
21 of such amounts as are appropriated to the respective
22 Fund under section 4103.

23 **SEC. 4103. TRANSFERS TO FUNDS.**

24 There are appropriated to each Fund established by
25 section 4101, out of funds of the Treasury not otherwise

1 appropriated, amounts equivalent to amounts deposited in
 2 each respective Fund under section 4302(b)(2).

3 **Subtitle B—Climate Change Credit** 4 **Corporation**

5 **SEC. 4201. ESTABLISHMENT.**

6 (a) ~~IN GENERAL.~~—There is established, as a non-
 7 profit corporation without stock, a corporation to be
 8 known as the “Climate Change Credit Corporation”.

9 (b) ~~TREATMENT.~~—The Corporation shall not be con-
 10 sidered to be an agency or establishment of the Federal
 11 Government.

12 **SEC. 4202. APPLICABLE LAWS.**

13 The Corporation shall be subject to this title and, to
 14 the extent consistent with this title, the District of Colum-
 15 bia Business Corporation Act (D.C. Code section 29-301
 16 et seq.).

17 **SEC. 4203. BOARD OF DIRECTORS.**

18 (a) ~~IN GENERAL.~~—The Corporation shall have a
 19 board of directors composed of 5 individuals who are citi-
 20 zens of the United States, of whom 1 shall be elected an-
 21 nually by the board to serve as Chairperson.

22 (b) ~~POLITICAL AFFILIATION.~~—Not more than 3
 23 members of the board serving at any time may be affili-
 24 ated with the same political party.

1 (c) **APPOINTMENT AND TERM.**—A member of the
 2 board shall be appointed by the President, by and with
 3 the advice and consent of the Senate, for a term of 5
 4 years.

5 (d) **QUORUM.**—Three members of the board shall
 6 constitute a quorum for a meeting of the board of direc-
 7 tors.

8 **Subtitle C—Auctions**

9 **SEC. 4301. EARLY AUCTIONS.**

10 (a) **INITIATION OF AUCTIONING.**—Not later than 1
 11 year after the date of enactment of this Act, the Corpora-
 12 tion shall begin auctioning the emission allowances allo-
 13 cated to the Corporation under section 3101.

14 (b) **COMPLETION OF AUCTIONING.**—Not later than
 15 December 31, 2011, the Corporation shall complete auc-
 16 tioning of all allowances allocated to the Corporation
 17 under section 3101.

18 (c) **PROCEEDS FROM EARLY AUCTIONING.**—The
 19 Corporation shall use to carry out programs established
 20 under subtitle D all proceeds of early auctioning conducted
 21 by the Corporation under this section.

22 **SEC. 4302. ANNUAL AUCTIONS.**

23 (a) **IN GENERAL.**—Not later than 30 days after the
 24 beginning of a calendar year identified in the table con-
 25 tained in section 3201, and annually thereafter through

1 calendar year 2050, the Corporation shall auction all of
 2 the allowances allocated to the Corporation for that year
 3 by the Administrator under section 3201.

4 (b) PROCEEDS FROM ANNUAL AUCTIONING.—

5 (1) IN GENERAL.—For each of calendar years
 6 2012 through 2050, the Corporation shall use to
 7 carry out the programs established under subtitle D
 8 55 percent of the proceeds from annual auctions
 9 that the Corporation conducts for the calendar year
 10 under this section.

11 (2) DEPOSIT OF FUNDS.—For each of calendar
 12 years 2012 through 2050, the Corporation shall,
 13 subject to subtitle H, deposit into the following
 14 Funds established by section 4101 the following per-
 15 centages of the proceeds from auctions that the Cor-
 16 poration conducts for the calendar year under this
 17 section:

Energy Assistance Fund	20
Climate Change Worker Training Fund	5
Adaptation Fund	20

18 **Subtitle D—Energy Technology** 19 **Deployment**

20 **SEC. 4401. IN GENERAL.**

21 For each calendar year, the Corporation shall use the
 22 amounts described in section 4301(e) and 4302(b) to

1 carry out the programs established under this subtitle, as
2 follows:

3 (1) Not more than 45 percent of the funds shall
4 be used to carry out the zero- or low-carbon energy
5 technologies program under section 4402.

6 (2) Not more than 35 percent of the funds shall
7 be used as follows:

8 (A) Not more than 28 percent shall be
9 used to carry out the advanced coal and seques-
10 tration technologies program under section
11 4403.

12 (B) Not more than 7 percent shall be used
13 to carry out the cellulosic biomass ethanol tech-
14 nology deployment programs under section
15 4404.

16 (3) Not more than 20 percent shall be used to
17 carry out the advanced technology vehicles manufac-
18 turing incentive program under section 4405.

19 **SEC. 4402. ZERO- OR LOW-CARBON ENERGY TECHNOLOGIES**
20 **DEPLOYMENT.**

21 (a) **DEFINITIONS.**—In this section:

22 (1) **ENERGY SAVINGS.**—The term “energy sav-
23 ings” means megawatt-hours of electricity or million
24 British thermal units of natural gas saved by a
25 product, in comparison to projected energy consump-

1 tion under an energy-efficiency standard applicable
2 to the product.

3 ~~(2) HIGH-EFFICIENCY CONSUMER PRODUCT.—~~

4 The term “high-efficiency consumer product” means
5 a covered product to which an energy conservation
6 standard applies under section 325 of the Energy
7 Policy and Conservation Act (42 U.S.C. 6295), if
8 the energy efficiency of the product exceeds the en-
9 ergy efficiency required under the standard.

10 ~~(3) ZERO- OR LOW-CARBON GENERATION.—~~The
11 term “zero- or low-carbon generation” means gen-
12 eration of electricity by an electric generation unit
13 that—

14 (A) emits no carbon dioxide into the at-
15 mosphere; or is fossil-fuel fired and emits into
16 the atmosphere not more than 250 pounds of
17 carbon dioxide per megawatt-hour (after adjust-
18 ment for any carbon dioxide from the unit that
19 is geologically sequestered); and

20 (B) was placed into commercial service
21 after the date of enactment of this Act.

22 ~~(b) FINANCIAL INCENTIVES PROGRAM.—~~During each
23 fiscal year beginning on or after October 1, 2008, the Cor-
24 poration shall competitively award financial incentives
25 under this subsection in the technology categories of—

1 (1) the production of electricity from new zero-
2 or low-carbon generation; and

3 (2) the manufacture of high-efficiency consumer
4 products.

5 (c) REQUIREMENTS.—

6 (1) IN GENERAL.—The Corporation shall make
7 awards under this section to producers of new zero-
8 or low-carbon generation and to manufacturers of
9 high-efficiency consumer products—

10 (A) in the case of producers of new zero-
11 or low-carbon generation, based on the bid of
12 each producer in terms of dollars per megawatt-
13 hour of electricity generated; and

14 (B) in the case of manufacturers of high-
15 efficiency consumer products, based on the bid
16 of each manufacturer in terms of dollars per
17 megawatt-hour or million British thermal units
18 saved.

19 (2) ACCEPTANCE OF BIDS.—

20 (A) IN GENERAL.—In making awards
21 under this subsection, the Corporation shall—

22 (i) solicit bids for reverse auction from
23 appropriate producers and manufacturers,
24 as determined by the Corporation; and

1 (ii) award financial incentives to the
2 producers and manufacturers that submit
3 the lowest bids that meet the requirements
4 established by the Corporation.

5 (B) FACTORS FOR CONVERSION.—

6 (i) IN GENERAL.—For the purpose of
7 assessing bids under subparagraph (A), the
8 Corporation shall specify a factor for con-
9 verting megawatt-hours of electricity and
10 million British thermal units of natural
11 gas to common units.

12 (ii) REQUIREMENT.—The conversion
13 factor shall be based on the relative green-
14 house gas emission benefits of electricity
15 and natural gas conservation.

16 (d) FORMS OF AWARDS.—

17 (1) ZERO- AND LOW-CARBON GENERATORS.—

18 An award for zero- or low-carbon generation under
19 this subsection shall be in the form of a contract to
20 provide a production payment for each year during
21 the first 10 years of commercial service of the gen-
22 eration unit in an amount equal to the product ob-
23 tained by multiplying—

24 (A) the amount bid by the producer of the
25 zero- or low-carbon generation; and

1 ~~(B) the megawatt-hours estimated to be~~
 2 ~~generated by the zero- or low-carbon generation~~
 3 ~~unit each year.~~

4 ~~(2) HIGH-EFFICIENCY CONSUMER PRODUCTS.—~~

5 ~~An award for a high-efficiency consumer product~~
 6 ~~under this subsection shall be in the form of a lump~~
 7 ~~sum payment in an amount equal to the product ob-~~
 8 ~~tained by multiplying—~~

9 ~~(A) the amount bid by the manufacturer of~~
 10 ~~the high-efficiency consumer product; and~~

11 ~~(B) the energy savings during the pro-~~
 12 ~~jected useful life of the high-efficiency consumer~~
 13 ~~product, not to exceed 10 years, as determined~~
 14 ~~by the Corporation.~~

15 **SEC. 4403. ADVANCED COAL AND SEQUESTRATION TECH-**
 16 **NOLOGIES PROGRAM.**

17 ~~(a) ADVANCED COAL TECHNOLOGIES.—~~

18 ~~(1) DEFINITION OF ADVANCED COAL GENERA-~~
 19 ~~TION TECHNOLOGY.—In this subsection, the term~~
 20 ~~“advanced coal generation technology” means ad-~~
 21 ~~vanced a coal-fueled power plant technology that—~~

22 ~~(A) achieves a minimum efficiency of 30~~
 23 ~~percent with respect to higher heating value of~~
 24 ~~the feedstock, after all parasitic requirements~~
 25 ~~for carbon dioxide capture and compression to~~

1 2,000 pounds per square inch absolute have
2 been subtracted;

3 (B) provides for the capture and geological
4 sequestration of at least 85 percent of carbon
5 dioxide produced at the facility, as determined
6 by the Corporation; and

7 (C) has an emission rate of not more than
8 250 pounds of carbon dioxide per megawatt-
9 hour of net electricity generation, after sub-
10 tracting the carbon dioxide that is captured and
11 sequestered.

12 (2) DEMONSTRATION PROJECTS.—The Cor-
13 poration shall use not less than $\frac{1}{4}$ of the amounts
14 made available to carry out this section for each fis-
15 cal year to support demonstration projects using ad-
16 vanced coal generation technology, including retrofit
17 technology that could be deployed on existing coal
18 generation facilities.

19 (3) DEPLOYMENT INCENTIVES.—

20 (A) IN GENERAL.—The Corporation shall
21 use not less than $\frac{1}{4}$ of the amounts made avail-
22 able to carry out this subsection for each fiscal
23 year to provide Federal financial incentives to
24 facilitate the deployment of not more than 20

1 gigawatts of advanced coal generation tech-
 2 nologies.

3 (B) ADMINISTRATION.—In providing in-
 4 centives under this paragraph, the Corporation
 5 shall—

6 (i) provide appropriate incentives for
 7 regulated investor-owned utilities, munic-
 8 ipal utilities, electric cooperatives, and
 9 independent power producers, as deter-
 10 mined by the Secretary of Energy; and

11 (ii) ensure that a range of the domes-
 12 tic coal types is employed in the facilities
 13 that receive incentives under this para-
 14 graph.

15 (C) FUNDING REQUIREMENTS.—

16 (i) SEQUESTRATION ACTIVITIES.—The
 17 Corporation shall provide incentives only to
 18 projects that will capture and sequester at
 19 least 85 percent of the carbon dioxide pro-
 20 duced by the project facilities.

21 (ii) STORAGE AGREEMENT RE-
 22 QUIRED.—The Corporation shall require a
 23 binding storage agreement for the carbon
 24 dioxide captured in a project under this
 25 subsection, in a geological storage project

1 permitted by the Administrator under reg-
 2 ulations promulgated pursuant to section
 3 1421(d) of the Safe Drinking Water Act
 4 (42 U.S.C. 300h(d)).

5 (iii) PROJECTS USING CERTAIN
 6 COALS.—In providing incentives under this
 7 paragraph, the Corporation shall set aside
 8 not less than 25 percent of any amounts
 9 made available to carry out this subsection
 10 for projects using lower-rank coals, such as
 11 subbituminous coal and lignite.

12 (4) DISTRIBUTION OF FUNDS.—A project that
 13 receives an award under this subsection may elect 1
 14 of the following Federal financial incentives:

15 (A) A loan guarantee.

16 (B) A cost-sharing grant to cover the in-
 17 cremental cost of installing and operating car-
 18 bon capture and storage equipment (for which
 19 utilization costs may be covered for the first 10
 20 years of operation).

21 (C) Production payments of not more than
 22 1.5 cents per kilowatt-hour of electric output
 23 during the first 10 years of commercial service
 24 of the project.

1 (5) LIMITATION.—A project may not receive an
2 award under this subsection if the project receives
3 an award under section 4402.

4 (b) SEQUESTRATION.—

5 (1) IN GENERAL.—The Corporation shall use
6 not less than 1/2 of the amounts made available to
7 carry out this subsection for each fiscal year for
8 large-scale geological carbon storage demonstration
9 projects that store carbon dioxide captured from fa-
10 cilities for the generation of electricity using coal
11 gasification or other advanced coal combustion pro-
12 cesses, including facilities that receive assistance
13 under subsection (a).

14 (2) PROJECT CAPITAL AND OPERATING
15 COSTS.—The Corporation shall provide assistance
16 under this paragraph to reimburse the project owner
17 for a percentage of the incremental project capital
18 and operating costs of the project that are attrib-
19 utable to carbon capture and sequestration, as the
20 Secretary determines to be appropriate.

21 **SEC. 4404. FUEL FROM CELLULOSIC BIOMASS.**

22 (a) IN GENERAL.—The Corporation shall provide de-
23 ployment incentives under this section to encourage a vari-
24 ety of projects to produce transportation fuels from cel-

1 cellulosic biomass, relying on different feedstocks in different
2 regions of the United States.

3 (b) ~~PROJECT ELIGIBILITY.~~—Incentives under this
4 section shall be provided on a competitive basis to projects
5 that produce fuels that—

6 (1) meet United States fuel and emission speci-
7 fications;

8 (2) help diversify domestic transportation en-
9 ergy supplies; and

10 (3) improve or maintain air, water, soil, and
11 habitat quality, and protect scarce water supplies.

12 (c) ~~INCENTIVES.~~—Incentives under this section may
13 consist of—

14 (1) loan guarantees for the construction of pro-
15 duction facilities and supporting infrastructure; or

16 (2) production payments through a reverse auc-
17 tion in accordance with subsection (d).

18 (d) ~~REVERSE AUCTION.~~—

19 (1) ~~IN GENERAL.~~—In providing incentives
20 under this section, the Corporation shall—

21 (A) prescribe rules under which producers
22 of fuel from cellulosic biomass may bid for pro-
23 duction payments under subsection (e)(2); and

1 (B) solicit bids from producers of different
 2 classes of transportation fuel, as the Corpora-
 3 tion determines to be appropriate.

4 (2) REQUIREMENT.—The rules under section
 5 4402 shall require that incentives shall be provided
 6 to the producers that submit the lowest bid (in
 7 terms of cents per gallon gasoline equivalent) for
 8 each class of transportation fuel from which the Cor-
 9 poration solicits a bid.

10 **SEC. 4405. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**
 11 **TURING INCENTIVE PROGRAM.**

12 (a) DEFINITIONS.—In this section:

13 (1) ADVANCED TECHNOLOGY VEHICLE.—The
 14 term “advanced technology vehicle” means a hybrid
 15 or advanced diesel light duty motor vehicle that
 16 meets—

17 (A) the Tier II Bin 5 emission standard
 18 established in rules prescribed by the Adminis-
 19 trator under section 202(i) of the Clean Air Act
 20 (42 U.S.C. 7521(i)), or a lower-numbered Bin
 21 emission standard;

22 (B) any new emission standard for fine
 23 particulate matter prescribed by the Adminis-
 24 trator under that Act; and

1 (C) at least 125 percent of the average
 2 base year combined fuel economy, calculated on
 3 an energy-equivalent basis, for vehicles of a
 4 substantially similar footprint.

5 (2) COMBINED FUEL ECONOMY.—The term
 6 “combined fuel economy” means—

7 (A) the combined city-highway miles per
 8 gallon values, as reported in accordance with
 9 section 32908 of title 49, United States Code;
 10 and

11 (B) in the case of an electric drive vehicle
 12 with the ability to recharge from an off-board
 13 source, the reported mileage, as determined in
 14 a manner consistent with the Society of Auto-
 15 motive Engineers recommended practice for
 16 that configuration, or a similar practice rec-
 17 ommended by the Secretary of Energy, using a
 18 petroleum equivalence factor for the off-board
 19 electricity (as defined by the Secretary of En-
 20 ergy).

21 (3) ENGINEERING INTEGRATION COSTS.—The
 22 term “engineering integration costs” includes the
 23 cost of engineering tasks relating to—

1 (A) incorporating qualifying components
2 into the design of advanced technology vehicles;
3 and

4 (B) designing new tooling and equipment
5 for production facilities that produce qualifying
6 components or advanced technology vehicles.

7 (4) QUALIFYING COMPONENT.—The term
8 “qualifying component” means a component that the
9 Secretary of Energy determines to be—

10 (A) specially designed for advanced tech-
11 nology vehicles; and

12 (B) installed for the purpose of meeting
13 the performance requirements of advanced tech-
14 nology vehicles as specified in subparagraphs
15 (A), (B), and (C) of paragraph (1).

16 (b) MANUFACTURER FACILITY CONVERSION
17 AWARDS.—The Corporation shall provide facility conver-
18 sion funding awards under this subsection to automobile
19 manufacturers and component suppliers to pay up to 30
20 percent of the cost of—

21 (1) reequipping or expanding an existing manu-
22 facturing facility to produce—

23 (A) qualifying advanced technology vehi-
24 cles; or

25 (B) qualifying components; and

1 (2) engineering integration of qualifying vehi-
2 cles and qualifying components.

3 (c) ~~PERIOD OF AVAILABILITY.~~—An award under sub-
4 section (b) shall apply to—

5 (1) facilities and equipment placed in service
6 after the date of enactment of this Act and before
7 January 1, 2016; and

8 (2) engineering integration costs incurred after
9 the date of enactment of this Act.

10 **Subtitle E—Energy Consumers**

11 **SEC. 4501. PROPORTIONS OF FUNDING AVAILABILITY.**

12 All funds deposited into the Energy Assistance Fund
13 established by section 4101 shall be made available, with-
14 out further appropriation or fiscal year limitation, to the
15 following programs in the following proportions:

16 (1) 50 percent of the funds to the low-income
17 home energy assistance program established under
18 the Low Income Home Energy Assistance Act of
19 1981 (42 U.S.C. 8621 et seq.).

20 (2) 25 percent of the funds to the Weatheriza-
21 tion Assistance Program for Low-Income Persons
22 established under part A of title IV of the Energy
23 Conservation and Production Act (42 U.S.C. 6861
24 et seq.).

1 ~~(3)~~ 25 percent of the funds to the rural energy
 2 assistance program described in section 4502.

3 **SEC. 4502. RURAL ENERGY ASSISTANCE PROGRAM.**

4 The Secretary of Energy shall carry out a program
 5 to use the funds made available under section 4501~~(3)~~ to
 6 provide financial assistance to promote the availability of
 7 reasonably-priced electricity in off-grid rural regions in
 8 which electricity prices exceed 150 percent of the national
 9 average, as determined by the Secretary of Energy.

10 **Subtitle F—Climate Change**
 11 **Worker Training Program**

12 **SEC. 4601. FUNDING.**

13 All funds deposited into the Climate Change Worker
 14 Training Fund established by section 4101 shall be made
 15 available, without further appropriation or fiscal year limi-
 16 tation, to carry out the programs established under this
 17 subtitle.

18 **SEC. 4602. PURPOSES.**

19 The purposes of this subtitle are—

20 ~~(1)~~ to provide quality job training to any work-
 21 ers displaced by this Act;

22 ~~(2)~~ to provide assistance in the form of tem-
 23 porary wages and health care benefits to workers in
 24 training;

1 ~~(3)~~ to transition workers into jobs created as a
2 result of this Act;

3 ~~(4)~~ to provide skilled workers to enterprises de-
4 veloping and marketing advanced technologies and
5 practices that reduce greenhouse gas emissions of
6 the United States; and

7 ~~(5)~~ to provide funding for State worker training
8 programs.

9 **SEC. 4603. ESTABLISHMENT.**

10 Not later than 180 days after the date of enactment
11 of this Act, the Secretary of Labor, in consultation with
12 the Administrator and the Secretary of Energy, shall es-
13 tablish a climate change worker training program that
14 achieves the purposes of this subtitle.

15 **SEC. 4604. GRANTS TO STATES.**

16 Not later than 1 year after the date of enactment
17 of this Act, the Secretary of Labor shall establish a pro-
18 gram to award grants to States, for use in funding State
19 worker training programs, based on the impact of this Act
20 on the workforce of each State, as determined by the Sec-
21 retary of Labor.

22 **SEC. 4605. TYPES OF ASSISTANCE.**

23 The types of assistance that workers may receive
24 under the climate change worker training program shall
25 include, as determined by the Secretary of Labor—

- 1 (1) income replacement;
- 2 (2) health care credits;
- 3 (3) travel costs incidental to participation in a
- 4 training program under this subtitle; and
- 5 (4) a portion of the cost of relocating to a new
- 6 job.

7 **Subtitle G—Adaptation Program**
 8 **for Natural Resources in United**
 9 **States and Territories**

10 **SEC. 4701. DEFINITIONS.**

11 In this subtitle:

12 (1) **ECOLOGICAL PROCESS.**—

13 (A) **IN GENERAL.**—The term “ecological
 14 process” means a biological, chemical, or phys-
 15 ical interaction between the biotic and abiotic
 16 components of an ecosystem.

17 (B) **INCLUSIONS.**—The term “ecological
 18 process” includes—

- 19 (i) nutrient cycling;
- 20 (ii) pollination;
- 21 (iii) predator-prey relationships;
- 22 (iv) soil formation;
- 23 (v) gene flow;
- 24 (vi) larval dispersal and settlement;
- 25 (vii) hydrological cycling;

1 (viii) decomposition; and

2 (ix) disturbance regimes, such as fire
3 and flooding.

4 (2) FISH AND WILDLIFE.—The term “fish and
5 wildlife” means—

6 (A) any species of wild fauna, including
7 fish and other aquatic species; and

8 (B) any fauna in a captive breeding pro-
9 gram the object of which is to reintroduce indi-
10 viduals of a depleted indigenous species into
11 previously occupied range.

12 (3) HABITAT.—The term “habitat” means the
13 physical, chemical, and biological properties that are
14 used by wildlife (including aquatic and terrestrial
15 plant communities) for growth, reproduction, and
16 survival, food, water, cover, and space, on a tract of
17 land, in a body of water, or in an area or region.

18 (4) INDIAN TRIBE.—The term “Indian tribe”
19 has the meaning given the term in section 4 of the
20 Indian Self-Determination and Education Assistance
21 Act (25 U.S.C. 450b).

22 (5) PLANT.—The term “plant” means any spe-
23 cies of wild flora.

24 (6) SECRETARY.—The term “Secretary” means
25 the Secretary of the Interior.

1 (7) STATE.—The term “State” means—

2 (A) a State;

3 (B) the District of Columbia;

4 (C) the Commonwealth of Puerto Rico;

5 and

6 (D) any other territory or possession of the

7 United States.

8 **SEC. 4702. ADAPTATION FUND.**

9 (a) IN GENERAL.—All amounts deposited in the Ad-
10 aptation Fund established by section 4101 shall be made
11 available, without further appropriation or fiscal year limi-
12 tation, to carry out activities (including research and edu-
13 cation activities) that assist fish and wildlife, fish and
14 wildlife habitat, plants, and associated ecological processes
15 in adapting to and surviving the impacts of climate change
16 (referred to in this subtitle as “adaptation activities”) pur-
17 suant to this subtitle.

18 (b) DEPARTMENT OF THE INTERIOR.—Of the
19 amounts made available to carry out this subtitle—

20 (1) 40 percent shall be allocated to the Sec-
21 retary, and subsequently made available to States
22 through the Wildlife Conservation and Restoration
23 Account established under section 3(a)(2) of the
24 Pittman-Robertson Wildlife Restoration Act (16
25 U.S.C. 669b(a)(2)), to carry out adaptation activi-

1 ties in accordance with comprehensive wildlife con-
2 servation strategies and, where appropriate, other
3 fish and wildlife conservation strategies, including—

4 (A) plans under the National Fish Habitat
5 Initiative of the National Fish and Wildlife
6 Foundation;

7 (B) North American Wetlands Conserva-
8 tion Act (16 U.S.C. 4401 et seq.);

9 (C) the Federal, State, and local partner-
10 ship known as “Partners in Flight”;

11 (D) coastal zone management plans;

12 (E) regional fishery management plans;

13 and

14 (F) recovery plans for threatened and en-
15 dangered species under section 6 of the Endan-
16 gered Species Act of 1973 (16 U.S.C. 1535);

17 (2) 20 percent shall be allocated to the Sec-
18 retary for use in funding adaptation activities ear-
19 ried out—

20 (A) under endangered species, migratory
21 bird, and other fish and wildlife programs ad-
22 ministered by the United States Fish and Wild-
23 life Service;

24 (B) on wildlife refuges and other public
25 land under the jurisdiction of the United States

1 Fish and Wildlife Service, Bureau of Land
2 Management, or National Park Service; or

3 ~~(C)~~ within Federal water managed by the
4 Bureau of Reclamation; and

5 ~~(3)~~ 5 percent shall be allocated to the Secretary
6 for adaptation activities carried out under coopera-
7 tive grant programs, including—

8 (A) the Tribal Wildlife Grants program of
9 the United States Fish and Wildlife Service;

10 (B) the cooperative endangered species
11 conservation fund authorized under section 6(i)
12 of the Endangered Species Act of 1973 ~~(16~~
13 ~~U.S.C. 1535(i))~~;

14 (C) programs under the North American
15 Wetlands Conservation Act ~~(16 U.S.C. 4401 et~~
16 ~~seq.)~~;

17 (D) the Land and Water Conservation
18 Fund established under section 2 of the Land
19 and Water Conservation Fund Act of 1965 ~~(16~~
20 ~~U.S.C. 4601–5)~~;

21 (E) the multinational species conservation
22 fund established under the heading “MULTI-
23 NATIONAL SPECIES CONSERVATION FUND” of
24 title I of the Department of the Interior and

1 Related Agencies Appropriations Act, 1999 (16
2 U.S.C. 4246);

3 (F) the Neotropical Migratory Bird Con-
4 servation Fund established by section 9(a) of
5 the Neotropical Migratory Bird Conservation
6 Act (16 U.S.C. 6108(a));

7 (G) the Coastal Program of the United
8 States Fish and Wildlife Service; and

9 (H) the National Fish Habitat Action
10 Plan.

11 (e) FOREST SERVICE.—Of the amounts made avail-
12 able each fiscal year to carry out this subtitle, 5 percent
13 shall be allocated to the Secretary of Agriculture for use
14 in funding adaptation activities carried out on National
15 Forests and National Grasslands under the jurisdiction of
16 the Forest Service.

17 (d) ENVIRONMENTAL PROTECTION AGENCY.—Of the
18 amounts made available to carry out this subtitle, 12.5
19 percent shall be allocated to the Administrator for use in
20 restoring and protecting—

21 (1) large-scale freshwater aquatic ecosystems;
22 such as the Everglades, the Great Lakes, Flathead
23 Lake, the Missouri River, and the Yellowstone River;
24 and

1 ~~(2) large-scale estuarine ecosystems, such as~~
 2 ~~Chesapeake Bay and Long Island Sound.~~

3 ~~(c) CORPS OF ENGINEERS.—Of the amounts made~~
 4 ~~available to carry out this subtitle, 12.5 percent shall be~~
 5 ~~allocated to the Corps of Engineers for use in restoring—~~

6 ~~(1) large-scale freshwater aquatic ecosystems,~~
 7 ~~such as the ecosystems described in subsection~~
 8 ~~(d)(1); and~~

9 ~~(2) large-scale estuarine ecosystems, such as~~
 10 ~~Chesapeake Bay, California Bay Delta, Coastal Lou-~~
 11 ~~isiana, Long Island Sound, and Puget Sound.~~

12 ~~(f) DEPARTMENT OF COMMERCE.—Of the amounts~~
 13 ~~made available to carry out this subtitle, 5 percent shall~~
 14 ~~be allocated to the Secretary of Commerce for use in fund-~~
 15 ~~ing adaptation activities carried out in protecting and re-~~
 16 ~~storing coastal, estuarine, coral, and marine species and~~
 17 ~~habitats, including adaptation activities in cooperative~~
 18 ~~grant programs such as—~~

19 ~~(1) the Coastal and Estuarine Land Conserva-~~
 20 ~~tion Program and the Community-Based Restoration~~
 21 ~~Program of the National Oceanic and Atmospheric~~
 22 ~~Administration; and~~

23 ~~(2) programs under the Coastal Zone Manage-~~
 24 ~~ment Act of 1972 (16 U.S.C. 1451 et seq.).~~

1 (g) COST SHARING.—Notwithstanding any other pro-
 2 vision of law, a State or Indian tribe that receives a grant
 3 under this section shall be required to provide 10 percent
 4 of the costs of each activity carried out using funds from
 5 the grant.

6 (h) COMPREHENSIVE ADAPTATION STRATEGY.—

7 (1) IN GENERAL.—Effective beginning on the
 8 date that is 18 months after the date of enactment
 9 of this Act, funds made available to the Federal
 10 agencies under this subtitle shall be used only for
 11 activities that are consistent with a comprehensive
 12 adaptation strategy that—

13 (A) is jointly approved by the head of each
 14 of the Federal agencies, after—

15 (i) consultation with States and In-
 16 dian tribes; and

17 (ii) solicitation of public and inde-
 18 pendent scientific input; and

19 (B) describes the manner in which the
 20 Federal Government will assist fish and wildlife,
 21 fish and wildlife habitat, plants, and associated
 22 ecological processes in adapting to and sur-
 23 viving the impacts of climate change.

1 (2) ~~UPDATING.~~—Each adaptation strategy de-
 2 scribed in paragraph (1) shall be updated at least
 3 every ~~5~~ years.

4 **Subtitle H—Climate Change and**
 5 **National Security Program**

6 **SEC. 4801. INTERAGENCY CLIMATE CHANGE AND NA-**
 7 **TIONAL SECURITY COUNCIL.**

8 (a) ~~ESTABLISHMENT.~~—There is established a Cli-
 9 mate Change and National Security Council (referred to
 10 in this subtitle as the “Council”).

11 (b) ~~MEMBERSHIP.~~—The Council shall include—

12 (1) the Secretary of State, who shall serve as
 13 Chairperson of the Council;

14 (2) the Administrator;

15 (3) the Secretary of Defense; and

16 (4) the Director of National Intelligence.

17 (c) ~~DUTIES.~~—The Council shall—

18 (1) submit annual reports to the President, the
 19 Committees on Environment and Public Works and
 20 Foreign Relations of the Senate, and the Commit-
 21 tees on Energy and Commerce and Foreign Rela-
 22 tions of the House of Representatives that de-
 23 scribe—

1 (A) the extent to which other countries are
2 committing to reducing greenhouse gas emis-
3 sions through mandatory programs;

4 (B) the extent to which global climate
5 change, through the potential negative impacts
6 of climate change on sensitive populations and
7 natural resources in different regions of the
8 world, may threaten, cause, or exacerbate polit-
9 ical instability or international conflict in those
10 regions; and

11 (C) the ramifications of any potentially de-
12 stabilizing impacts climate change may have on
13 the national security of the United States, in-
14 cluding—

15 (i) the creation of refugees; and

16 (ii) international or intranational con-
17 flicts over water, food, land, or other re-
18 sources; and

19 (2) include in each annual report submitted
20 under paragraph (1) recommendations on whether it
21 is necessary to enhance the national security of the
22 United States by funding programs with amounts
23 made available under section 4802 that the Council
24 determines would assist in avoiding the politically

1 destabilizing impacts of climate change in volatile re-
2 gions of the world.

3 **SEC. 4802. FUNDING.**

4 Upon a determination for any calendar year by the
5 President, based on any report and recommendations sub-
6 mitted by the Council under section 4801, that funds
7 should be made available to carry out the recommenda-
8 tions—

9 (1) notwithstanding section 4302(b)(2), the
10 Corporation shall deposit 5 percent of the proceeds
11 from auctions that the Corporation conducts for that
12 calendar year under section 4302(a) into the Cli-
13 mate Change and National Security Fund estab-
14 lished by section 4101; and

15 (2) the President shall use those funds to im-
16 plement the recommendations.

17 **Subtitle I—Audits**

18 **SEC. 4901. REVIEW AND AUDIT BY COMPTROLLER GEN-**
19 **ERAL OF THE UNITED STATES.**

20 Not later than January 1, 2014, and at least every
21 3 years thereafter, the Comptroller General of the United
22 States shall review and audit the expenditures under this
23 title to determine the efficacy of the programs, expendi-
24 tures, and projects funded under this title.

1 **TITLE V—ENERGY EFFICIENCY**

2 **Subtitle A—Appliance Efficiency**

3 **SEC. 5101. RESIDENTIAL BOILERS.**

4 Section 325(f) of the Energy Policy and Conservation
5 Act (42 U.S.C. 6925(f)) is amended—

6 (1) in the subsection heading, by inserting
7 “AND BOILERS” after “FURNACES”;

8 (2) in paragraph (1), by striking “except that”
9 and all that follows through subparagraph (A) and
10 inserting “except that”;

11 (3) in subparagraph (B)—

12 (A) by striking “(B) the Secretary” and
13 inserting “the Secretary”; and

14 (B) by redesignating clauses (i) through
15 (iii) as subparagraphs (A) through (C), respec-
16 tively, and indenting appropriately;

17 (4) by redesignating paragraph (3) as para-
18 graph (4); and

19 (5) by inserting after paragraph (2) the fol-
20 lowing:

21 “(3) BOILERS.—

22 “(A) IN GENERAL.—Subject to subpara-
23 graphs (B) and (C), boilers manufactured on or
24 after September 1, 2012, shall meet the fol-
25 lowing requirements:

“Boiler Type Requirements	Minimum Annual Fuel Utilization Efficiency	Design
Gas hot water	82 percent	No constant burning pilot, automatic means for adjust- ing water temperature
Gas steam	80 percent	No constant burning pilot
Oil hot water	84 percent	Automatic means for adjusting temperature
Oil steam	82 percent	None
Electric hot water	None	Automatic means for adjusting temperature
Electric steam	None	None

1 “(B) AUTOMATIC MEANS FOR ADJUSTING
2 WATER TEMPERATURE.—

3 “(i) IN GENERAL.—The manufacturer
4 shall equip each gas, oil, and electric hot
5 water boiler (other than a boiler equipped
6 with tankless domestic water heating coils)
7 with an automatic means for adjusting the
8 temperature of the water supplied by the
9 boiler to ensure that an incremental
10 change in inferred heat load produces a
11 corresponding incremental change in the
12 temperature of water supplied.

13 “(ii) CERTAIN BOILERS.—For a boiler
14 that fires at 1 input rate, the requirements
15 of this subparagraph may be satisfied by
16 providing an automatic means that allows
17 the burner or heating element to fire only
18 when the means has determined that the

inferred heat load cannot be met by the residual heat of the water in the system.

“(iii) ~~NO INFERRED HEAT LOAD.~~—

When there is no inferred heat load with respect to a hot water boiler, the automatic means described in clauses (i) and (ii) shall limit the temperature of the water in the boiler to not more than 140 degrees Fahrenheit.

“(iv) ~~OPERATION.~~—A boiler described

in clause (i) or (ii) shall be operable only when the automatic means described in clauses (i), (ii), and (iii) is installed.

“(C) ~~EXCEPTION.~~—A boiler that is manu-

factured to operate without any need for electricity, any electric connection, any electric gauges, electric pumps, electric wires, or electric devices of any sort, shall not be required to meet the requirements of this subsection.”.

**SEC. 5102. REGIONAL VARIATIONS IN HEATING OR COOL-
ING STANDARDS.**

(a) ~~IN GENERAL.~~—Section 327 of the Energy Policy and Conservation Act (42 U.S.C. 6297) is amended—

(1) by redesignating subsections (e), (f), and (g) as subsections (f), (g), and (h), respectively; and

1 (2) by inserting after subsection (d) the fol-
2 lowing:

3 “(e) REGIONAL STANDARDS FOR SPACE HEATING
4 AND AIR CONDITIONING PRODUCTS.—

5 “(1) STANDARDS.—

6 “(A) IN GENERAL.—The Secretary may es-
7 tablish regional standards for space heating and
8 air conditioning products, other than window-
9 unit air-conditioners and portable space heaters.

10 “(B) NATIONAL MINIMUM AND REGIONAL
11 STANDARDS.—For each space heating and air
12 conditioning product, the Secretary may estab-
13 lish—

14 “(i) a national minimum standard;
15 and

16 “(ii) 2 more stringent regional stand-
17 ards for regions determined to have signifi-
18 cantly differing climatic conditions.

19 “(C) MAXIMUM SAVINGS.—Any standards
20 established for a region under subparagraph
21 (B)(ii) shall achieve the maximum level of en-
22 ergy savings that are technically feasible and
23 economically justified within that region.

24 “(D) ECONOMIC JUSTIFIABILITY STUDY.—

1 “(i) IN GENERAL.—As a preliminary
 2 step in determining the economic justifi-
 3 ability of establishing a regional standard
 4 under subparagraph (B)(ii), the Secretary
 5 shall conduct a study involving stake-
 6 holders, including—

7 “(I) a representative from the
 8 National Institute of Standards and
 9 Technology;

10 “(II) representatives of non-
 11 governmental advocacy organizations;

12 “(III) representatives of product
 13 manufacturers, distributors, and in-
 14 stallers;

15 “(IV) representatives of the gas
 16 and electric utility industries; and

17 “(V) such other individuals as
 18 the Secretary may designate.

19 “(ii) REQUIREMENTS.—The study
 20 under this subparagraph—

21 “(I) shall determine the potential
 22 benefits and consequences of pre-
 23 scribing regional standards for heat-
 24 ing and cooling products; and

1 “(H) may, if favorable to the
2 standards, constitute the evidence of
3 economic justifiability required under
4 this Act.

5 “(E) REGIONAL BOUNDARIES.—Regional
6 boundaries used in establishing regional stand-
7 ards under subparagraph (B)(ii) shall—

8 “(i) conform to State borders; and

9 “(ii) include only contiguous States
10 (other than Alaska and Hawaii), except
11 that on the request of a State, the Sec-
12 retary may divide the State to include a
13 part of the State in each of 2 regions.

14 “(2) NONCOMPLYING PRODUCTS.—If the Sec-
15 retary establishes standards for a region, it shall be
16 unlawful under section 332 to offer for sale at retail,
17 sell at retail, or install within the region products
18 that do not comply with the applicable standards.

19 “(3) DISTRIBUTION IN COMMERCE.—

20 “(A) IN GENERAL.—Except as provided in
21 subparagraph (B), no product manufactured in
22 a manner that complies with a regional stand-
23 ard established under paragraph (1) shall be
24 distributed in commerce without a prominent
25 label affixed to the product that includes—

1 “(i) at the top of the label, in print of
2 not less than 14-point type, the following
3 statement: ‘It is a violation of Federal law
4 for this product to be installed in any
5 State outside the region shaded on the
6 map printed on this label.’;

7 “(ii) below the notice described in
8 clause (i), an image of a map of the United
9 States with clearly defined State bound-
10 aries and names, and with all States in
11 which the product meets or exceeds the
12 standard established pursuant to para-
13 graph (1) shaded in a color or a manner
14 as to be easily visible without obscuring the
15 State boundaries and names; and

16 “(iii) below the image of the map re-
17 quired under clause (ii), the following
18 statement: ‘It is a violation of Federal law
19 for this label to be removed, except by the
20 owner and legal resident of any single-fam-
21 ily home in which this product is in-
22 stalled.’.

23 “(B) ENERGY-EFFICIENCY RATING.—A
24 product manufactured that meets or exceeds all
25 regional standards established under this para-

graph shall bear a prominent label affixed to the product that includes at the top of the label, in print of not less than 14-point type, the following statement: ‘This product has achieved an energy-efficiency rating under Federal law allowing its installation in any State.’

“(4) RECORDKEEPING.—A manufacturer of space heating or air conditioning equipment subject to regional standards established under this subsection shall—

“(A) obtain and retain records on the intended installation locations of the equipment sold; and

“(B) make such records available to the Secretary on request.”

(b) CONFORMING AMENDMENTS.—Section 327 of the Energy Policy and Conservation Act (42 U.S.C. 6297) is amended—

(1) in subsection (b)—

(A) in paragraph (2), by striking “subsection (c)” and inserting “subsection (f)”; and

(B) in paragraph (3)—

(i) by striking “subsection (f)(1)” and inserting “subsection (g)(1)”; and

1 (ii) by striking “subsection (f)(2)”
 2 and inserting “subsection (g)(2)”; and
 3 (2) in subsection (e)(3), by striking “subsection
 4 (f)(3)” and inserting “subsection (g)(3)”.

5 **Subtitle B—Building Efficiency**

6 **SEC. 5201. UPDATING STATE BUILDING ENERGY EFFI-** 7 **CIENCY CODES.**

8 Section 304 of the Energy Conservation and Produc-
 9 tion Act (42 U.S.C. 6833) is amended to read as follows:
 10 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-**
 11 **CIENCY CODES.**

12 **“(a) UPDATES.—**

13 **“(1) IN GENERAL.—**The Secretary shall sup-
 14 port updating the national model building energy
 15 codes and standards not later than 3 years after the
 16 date of enactment of the America’s Climate Security
 17 Act of 2007, and not less frequently every 3 years
 18 thereafter, to achieve overall energy savings, as com-
 19 pared to the IECC (2006) for residential buildings
 20 and ASHRAE Standard 90.1 (2004) for commercial
 21 buildings, of at least—

22 **“(A) 30 percent by 2010;**

23 **“(B) 50 percent by 2020; and**

24 **“(C) goals to be established by the Sec-**
 25 **retary in intermediate and subsequent years, at**

the maximum level of energy efficiency that is technologically feasible and lifecycle cost effective.

~~“(2) REVISIONS TO IECC AND ASHRAE.—~~

~~“(A) IN GENERAL.—If the IECC or ASHRAE Standard 90.1 regarding building energy use is revised, not later than 180 days after the date of the revision, the Secretary shall determine whether the revision will—~~

~~“(i) improve energy efficiency in buildings; and~~

~~“(ii) meet the energy savings goals described in paragraph (1).~~

~~“(B) MODIFICATIONS.—~~

~~“(i) IN GENERAL.—If the Secretary makes a determination under subparagraph (A)(ii) that a code or standard does not meet the energy savings goals established under paragraph (1) or if a national model code or standard is not updated for more than 3 years, not later than 1 year after the determination or the expiration of the 3-year period, the Secretary shall propose a modified code or standard that meets the energy savings goals.~~

1 “(ii) REQUIREMENTS.—

2 “(I) ENERGY SAVINGS.—A modi-
3 fication to a code or standard under
4 clause (i) shall—

5 “(aa) achieve the maximum
6 level of energy savings that is
7 technically feasible and economi-
8 cally justified; and

9 “(bb) incorporate available
10 appliances, technologies, and con-
11 struction practices.

12 “(II) TREATMENT AS BASE-
13 LINE.—A modification to a code or
14 standard under clause (i) shall serve
15 as the baseline for the next applicable
16 determination of the Secretary under
17 subparagraph (A)(i).

18 “(C) PUBLIC PARTICIPATION.—The Sec-
19 retary shall—

20 “(i) publish in the Federal Register a
21 notice relating to each goal, determination,
22 and modification under this paragraph;
23 and

1 “(ii) provide an opportunity for public
2 comment regarding the goals, determina-
3 tions, and modifications.

4 “(b) STATE CERTIFICATION OF BUILDING ENERGY
5 CODE UPDATES.—

6 “(1) GENERAL CERTIFICATION.—

7 “(A) IN GENERAL.—Not later than 2 years
8 after the date of enactment of the America’s
9 Climate Security Act of 2007, each State shall
10 certify to the Secretary that the State has re-
11 viewed and updated the provisions of the resi-
12 dential and commercial building codes of the
13 State regarding energy efficiency.

14 “(B) ENERGY SAVINGS.—A certification
15 under subparagraph (A) shall include a dem-
16 onstration that the applicable provisions of the
17 State code meet or exceed, as applicable—

18 “(i)(I) the IECC (2006) for residen-
19 tial buildings; or

20 “(II) the ASHRAE Standard 90.1
21 (2004) for commercial buildings; or

22 “(ii) the quantity of energy savings
23 represented by the provisions referred to in
24 clause (i).

25 “(2) REVISION OF CODES AND STANDARDS.—

“(A) IN GENERAL.—If the Secretary makes an affirmative determination under subsection (a)(2)(A)(i) or proposes a modified code or standard under subsection (a)(2)(B), not later than 2 years after the determination or proposal, each State shall certify that the State has reviewed and updated the provisions of the residential and commercial building codes of the State regarding energy efficiency.

“(B) ENERGY SAVINGS.—A certification under subparagraph (A) shall include a demonstration that the applicable provisions of the State code meet or exceed—

“(i) the modified code or standard; or

“(ii) the quantity of energy savings represented by the modified code or standard.

“(C) FAILURE TO DETERMINE.—If the Secretary fails to make a determination under subsection (a)(2)(A)(i) by the date specified in subsection (a)(2), or if the Secretary makes a negative determination, not later than 2 years after the specified date or the date of the determination, each State shall certify that the State has—

1 “(i) reviewed the revised code or
2 standard; and

3 “(ii) updated the provisions of the res-
4 idential and commercial building codes of
5 the State as necessary to meet or exceed,
6 as applicable—

7 “(I) any provisions of a national
8 code or standard determined to im-
9 prove energy efficiency in buildings; or

10 “(H) energy savings achieved by
11 those provisions through other means.

12 “(c) ACHIEVEMENT OF COMPLIANCE BY STATES.—

13 “(1) IN GENERAL.—Not later than 3 years
14 after the date on which a State makes a certification
15 under subsection (b), the State shall certify to the
16 Secretary that the State has achieved compliance
17 with the national building energy code that is the
18 subject of the certification.

19 “(2) RATE OF COMPLIANCE.—The certification
20 shall include documentation of the rate of compli-
21 ance based on independent inspections of a random
22 sample of the new and renovated buildings covered
23 by the State code during the preceding calendar
24 year.

1 ~~“(3) COMPLIANCE.—~~A State shall be considered
 2 to achieve compliance for purposes of paragraph (1)
 3 if—

4 ~~“(A) at least 90 percent of new and ren-~~
 5 ~~ovated buildings covered by the State code dur-~~
 6 ~~ing the preceding calendar year substantially~~
 7 ~~meet all the requirements of the code; or~~

8 ~~“(B) the estimated excess energy use of~~
 9 ~~new and renovated buildings that did not meet~~
 10 ~~the requirements of the State code during the~~
 11 ~~preceding calendar year, as compared to a base-~~
 12 ~~line of comparable buildings that meet the re-~~
 13 ~~quirements of the code, is not more than 10~~
 14 ~~percent of the estimated energy use of all new~~
 15 ~~and renovated buildings covered by the State~~
 16 ~~code during the preceding calendar year.~~

17 ~~“(d) FAILURE TO CERTIFY.—~~

18 ~~“(1) EXTENSION OF DEADLINES.—~~The Sec-
 19 ~~retary shall extend a deadline for certification by a~~
 20 ~~State under subsection (b) or (c) for not more than~~
 21 ~~1 additional year, if the State demonstrates to the~~
 22 ~~satisfaction of the Secretary that the State has~~
 23 ~~made—~~

24 ~~“(A) a good faith effort to comply with the~~
 25 ~~certification requirement; and~~

1 “(B) significant progress with respect to
2 the compliance.

3 ~~“(2) NONCOMPLIANCE BY STATE.—~~

4 ~~“(A) IN GENERAL.—A State that fails to~~
5 ~~submit a certification required under subsection~~
6 ~~(b) or (c), and to which an extension is not pro-~~
7 ~~vided under paragraph (1), shall be considered~~
8 ~~to be out of compliance with this section.~~

9 ~~“(B) EFFECT ON LOCAL GOVERNMENTS.—~~

10 ~~A local government of a State that is out of~~
11 ~~compliance with this section may be considered~~
12 ~~to be in compliance with this section if the local~~
13 ~~government meets each applicable certification~~
14 ~~requirement of this section.~~

15 ~~“(e) TECHNICAL ASSISTANCE.—~~

16 ~~“(1) IN GENERAL.—The Secretary shall provide~~
17 ~~technical assistance (including building energy anal-~~
18 ~~ysis and design tools, building demonstrations, and~~
19 ~~design assistance and training) to ensure that na-~~
20 ~~tional model building energy codes and standards~~
21 ~~meet the goals described in subsection (a)(1).~~

22 ~~“(2) ASSISTANCE TO STATES.—The Secretary~~
23 ~~shall provide technical assistance to States—~~

24 ~~“(A) to implement this section, including~~
25 ~~procedures for States to demonstrate that the~~

1 codes of the States achieve equivalent or great-
 2 er energy savings than the national model codes
 3 and standards;

4 “(B) to improve and implement State resi-
 5 dential and commercial building energy effi-
 6 ciency codes; and

7 “(C) to otherwise promote the design and
 8 construction of energy-efficient buildings.

9 “(f) INCENTIVE FUNDING.—

10 “(1) IN GENERAL.—The Secretary shall provide
 11 incentive funding to States—

12 “(A) to implement this section; and

13 “(B) to improve and implement State resi-
 14 dential and commercial building energy effi-
 15 ciency codes, including increasing and verifying
 16 compliance with the codes.

17 “(2) AMOUNT.—In determining whether, and in
 18 what amount, to provide incentive funding under
 19 this subsection, the Secretary shall take into consid-
 20 eration actions proposed by the State—

21 “(A) to implement this section;

22 “(B) to implement and improve residential
 23 and commercial building energy efficiency
 24 codes; and

1 “(C) to promote building energy efficiency
2 through use of the codes.

3 “(3) ~~ADDITIONAL FUNDING.~~—The Secretary
4 shall provide additional funding under this sub-
5 section for implementation of a plan to demonstrate
6 a rate of compliance with applicable residential and
7 commercial building energy efficiency codes at a rate
8 of not less than 90 percent, based on energy per-
9 formance—

10 “(A) to a State that has adopted and is
11 implementing, on a statewide basis—

12 “(i) a residential building energy effi-
13 ciency code that meets or exceeds the re-
14 quirements of the IECC (2006) (or a suc-
15 cessor code that is the subject of an af-
16 firmative determination by the Secretary
17 under subsection (a)(2)(A)(i)); and

18 “(ii) a commercial building energy ef-
19 ficiency code that meets or exceeds the re-
20 quirements of the ASHRAE Standard 90.1
21 (2004) (or a successor standard that is the
22 subject of an affirmative determination by
23 the Secretary under subsection
24 (a)(2)(A)(i)); or

“(B) in the case of a State in which no statewide energy code exists for residential buildings or commercial buildings, or in which the State code fails to comply with subparagraph (A), to a local government that has adopted and is implementing residential and commercial building energy efficiency codes, as described in subparagraph (A).”

“(4) TRAINING.—Of the amounts made available to carry out this subsection, the Secretary may use not more than \$500,000 for each State to train State and local officials to implement State or local energy codes in accordance with a plan described in paragraph (3).”

SEC. 5202. CONFORMING AMENDMENT.

Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended by adding at the end the following new paragraph:

“(17) IECC.—The term ‘IECC’ means the International Energy Conservation Code.”

**TITLE VI—GLOBAL EFFORT TO
REDUCE GREENHOUSE GAS
EMISSIONS**

SEC. 6001. DEFINITIONS.

In this title:

1 (1) ~~BASELINE EMISSION LEVEL.~~—The term
 2 “baseline emission level” means, as determined by
 3 the Administrator, the total average annual green-
 4 house gas emissions attributed to a category of cov-
 5 ered goods of a foreign country during the period be-
 6 ginning on January 1, 2012, and ending on Decem-
 7 ber 31, 2014, based on—

8 (A) relevant data available for that period;
 9 and

10 (B) to the extent necessary with respect to
 11 a specific category of covered goods, economic
 12 and engineering models and best available infor-
 13 mation on technology performance levels for the
 14 manufacture of that category of covered goods.

15 (2) ~~COMPARABLE ACTION.~~—The term “com-
 16 parable action” means any greenhouse gas regu-
 17 latory programs, requirements, and other measures
 18 adopted by a foreign country that, in combination,
 19 are comparable in effect to actions carried out by
 20 the United States to limit greenhouse gas emissions
 21 pursuant to this Act, as determined by the Presi-
 22 dent, taking into consideration the level of economic
 23 development of the foreign country.

24 (3) ~~COMPLIANCE YEAR.~~—The term “compliance
 25 year” means each calendar year for which the re-

quirements of this title apply to a category of covered goods of a covered foreign country that is imported into the United States.

(4) COVERED FOREIGN COUNTRY.—The term “covered foreign country” means a foreign country that is included on the covered list prepared under section 6006(b)(3).

(5) COVERED GOOD.—The term “covered good” means a good that (as identified by the Administrator by rule)—

(A) is a primary product;

(B) generates, in the course of the manufacture of the good, a substantial quantity of direct greenhouse gas emissions and indirect greenhouse gas emissions; and

(C) is closely related to a good the cost of production of which in the United States is affected by a requirement of this Act.

(6) FOREIGN COUNTRY.—The term “foreign country” means a member of, or observer government to, the World Trade Organization (WTO), other than the United States.

(7) INDIRECT GREENHOUSE GAS EMISSIONS.—The term “indirect greenhouse gas emissions” means any emissions of a greenhouse gas resulting

1 from the generation of electricity that is consumed
 2 during the manufacture of a good.

3 ~~(8) INTERNATIONAL AGREEMENT.—~~The term
 4 “international agreement” means any international
 5 agreement to which the United States is a party, in-
 6 cluding the Marrakesh agreement establishing the
 7 World Trade Organization, done at Marrakesh on
 8 April 15, 1994.

9 ~~(9) INTERNATIONAL RESERVE ALLOWANCE.—~~
 10 The term “international reserve allowance” means
 11 an allowance (denominated in units of metric tons of
 12 carbon dioxide equivalent) that is—

13 ~~(A) purchased from a special reserve of al-~~
 14 ~~lowances pursuant to section 6006(a)(2); and~~

15 ~~(B) used for purposes of meeting the re-~~
 16 ~~quirements of section 6006.~~

17 ~~(10) PRIMARY PRODUCT.—~~The term “primary
 18 product” means—

19 ~~(A) iron, steel, aluminum, cement, bulk~~
 20 ~~glass, or paper; or~~

21 ~~(B) any other manufactured product~~
 22 ~~that—~~

23 ~~(i) is sold in bulk for purposes of fur-~~
 24 ~~ther manufacture; and~~

1 (ii) generates, in the course of the
2 manufacture of the product, direct green-
3 house gas emissions and indirect green-
4 house gas emissions that are comparable
5 (on an emissions-per-dollar basis) to emis-
6 sions generated in the manufacture of
7 products by covered facilities in the indus-
8 trial sector.

9 **SEC. 6002. PURPOSES.**

10 The purposes of this title are—

11 (1) to promote a strong global effort to signifi-
12 cantly reduce greenhouse gas emissions;

13 (2) to ensure, to the maximum extent prac-
14 ticable, that greenhouse gas emissions occurring out-
15 side the United States do not undermine the objec-
16 tives of the United States in addressing global cli-
17 mate change; and

18 (3) to encourage effective international action
19 to achieve those objectives through—

20 (A) agreements negotiated between the
21 United States and foreign countries; and

22 (B) measures carried out by the United
23 States that comply with applicable international
24 agreements.

1 **SEC. 6003. INTERNATIONAL NEGOTIATIONS.**

2 (a) FINDING.—Congress finds that the purposes de-
3 scribed in section 6002 can be most effectively addressed
4 and achieved through agreements negotiated between the
5 United States and foreign countries.

6 (b) NEGOTIATING OBJECTIVE.—

7 (1) STATEMENT OF POLICY.—It is the policy of
8 the United States to work proactively under the
9 United Nations Framework Convention on Climate
10 Change and, in other appropriate forums, to estab-
11 lish binding agreements committing all major green-
12 house gas-emitting nations to contribute equitably to
13 the reduction of global greenhouse gas emissions.

14 (2) INTENT OF CONGRESS REGARDING OBJEC-
15 TIVE.—To the extent that the agreements described
16 in subsection (a) involve measures that will affect
17 international trade in any good or service, it is the
18 intent of Congress that the negotiating objective of
19 the United States shall be to focus multilateral and
20 bilateral international agreements on the reduction
21 of greenhouse gas emissions to advance achievement
22 of the purposes described in section 6002.

23 **SEC. 6004. INTERAGENCY REVIEW.**

24 (a) INTERAGENCY GROUP.—

1 (1) ~~ESTABLISHMENT.~~—The President shall es-
 2 tablish an interagency group to carry out this sec-
 3 tion.

4 (2) ~~CHAIRPERSON.~~—The chairperson of the
 5 interagency group established under paragraph (1)
 6 shall be the Secretary of State.

7 (3) ~~REQUIREMENT.~~—The Administrator shall
 8 be a member of the interagency group.

9 (b) ~~DETERMINATIONS.~~—

10 (1) ~~IN GENERAL.~~—Subject to paragraph (2),
 11 the interagency group established under subsection
 12 (a)(1) shall determine whether, and the extent to
 13 which, each foreign country has taken comparable
 14 action to limit the greenhouse gas emissions of the
 15 foreign country.

16 (2) ~~EXEMPTION.~~—The interagency group may
 17 exempt from a determination under paragraph (1)
 18 any foreign country on the excluded list under sec-
 19 tion 6006(b)(2).

20 (c) ~~REPORT TO PRESIDENT.~~—Not later than Janu-
 21 ary 1, 2018, and annually thereafter, the interagency
 22 group shall submit to the President a report describing
 23 the determinations of the interagency group under sub-
 24 section (b).

1 **SEC. 6005. PRESIDENTIAL DETERMINATIONS.**

2 (a) ~~IN GENERAL.~~—Not later than January 1, 2019,
3 and annually thereafter, the President shall determine
4 whether each foreign country that is subject to interagency
5 review under section 6004(b) has taken comparable action
6 to limit the greenhouse gas emissions of the foreign coun-
7 try, taking into consideration—

8 (1) the baseline emission levels of the foreign
9 country; and

10 (2) applicable reports submitted under section
11 6004(c).

12 (b) ~~REPORTS.~~—The President shall—

13 (1) submit to Congress an annual report de-
14 scribing the determinations of the President under
15 subsection (a) for the most recent calendar year; and

16 (2) publish the determinations in the Federal
17 Register.

18 **SEC. 6006. INTERNATIONAL RESERVE ALLOWANCE PRO-**
19 **GRAM.**

20 (a) ~~ESTABLISHMENT.~~—

21 (1) ~~IN GENERAL.~~—The Administrator shall es-
22 tablish a program under which the Administrator,
23 during the 1-year period beginning on January 1,
24 2019, and annually thereafter, shall offer for sale to
25 United States importers international reserve allow-
26 ances in accordance with this subsection.

1 (2) SOURCE.—International reserve allowances
 2 under paragraph (1) shall be issued from a special
 3 reserve of allowances that is separate from, and es-
 4 tablished in addition to, the quantity of allowances
 5 established under section 1201.

6 (3) PRICE.—

7 (A) IN GENERAL.—Subject to subpara-
 8 graph (B), the Administrator shall establish, by
 9 rule, a methodology for determining the price of
 10 international reserve allowances for each com-
 11 pliance year at a level that does not exceed the
 12 market price of allowances established under
 13 section 1201 for the compliance year.

14 (B) MAXIMUM PRICE.—The price for an
 15 international reserve allowance under subpara-
 16 graph (A) shall not exceed the clearing price for
 17 current compliance year allowances established
 18 at the most recent auction of allowances by the
 19 Corporation.

20 (4) SERIAL NUMBER.—The Administrator shall
 21 assign a unique serial number to each international
 22 reserve allowance issued under this subsection.

23 (5) TRADING SYSTEM.—The Administrator may
 24 establish, by rule, a system for the sale, exchange,

1 purchase, transfer, and banking of international re-
 2 serve allowances.

3 ~~(6) REGULATED ENTITIES.~~—International re-
 4 serve allowances may not be submitted by regulated
 5 entities to comply with the allowance submission re-
 6 quirements of section 1202.

7 ~~(7) PROCEEDS.~~—All proceeds from the sale of
 8 international reserve allowances under this sub-
 9 section shall be allocated to a program that the Ad-
 10 ministrator, in coordination with the Secretary of
 11 State, shall establish to mitigate the negative im-
 12 pacts of global climate change on disadvantaged
 13 communities in other countries.

14 ~~(b) FOREIGN COUNTRY LISTS.~~—

15 ~~(1) IN GENERAL.~~—Not later than January 1,
 16 2020, and annually thereafter, the President shall
 17 develop and publish in the Federal Register 2 lists
 18 of foreign countries, in accordance with this sub-
 19 section.

20 ~~(2) EXCLUDED LIST.~~—

21 ~~(A) IN GENERAL.~~—The President shall
 22 identify and publish in a list, to be known as
 23 the “excluded list”, each foreign country the
 24 share of total global greenhouse gas emissions

of which is below the de minimis percentage described in subparagraph (B).

(B) ~~DE MINIMIS PERCENTAGE.~~—The de minimis percentage referred to in subparagraph (A) is a percentage of total global greenhouse gas emissions of not more than 0.5, as determined by the President, for the most recent calendar year for which emissions and other relevant data is available, taking into consideration, as necessary, the annual average deforestation rate during a representative period for a foreign country that is a developing country.

~~(3) COVERED LIST.~~—

(A) ~~IN GENERAL.~~—The President shall identify and publish in a list, to be known as the “covered list”, each foreign country the covered goods of which are subject to the requirements of this section.

(B) ~~REQUIREMENT.~~—The covered list shall include each foreign country that is not included on the excluded list under paragraph (2).

~~(c) WRITTEN DECLARATIONS.~~—

(1) ~~IN GENERAL.~~—Effective beginning January 1, 2020, a United States importer of any covered

1 good shall, as a condition of importation or with-
 2 drawal for consumption from a warehouse of the
 3 covered good, submit to the Administrator and the
 4 appropriate office of the U.S. Customs and Border
 5 Protection a written declaration with respect to each
 6 such importation or withdrawal.

7 (2) CONTENTS.—A written declaration under
 8 paragraph (1) shall contain a statement that—

9 (A) the applicable covered good is accom-
 10 panied by a sufficient number of international
 11 reserve allowances, as determined under sub-
 12 section (d); or

13 (B) the covered good is from a foreign
 14 country on the excluded list under subsection
 15 (b)(2).

16 (3) INCLUSION.—A written declaration de-
 17 scribed in paragraph (2)(A) shall include the unique
 18 serial number of each emission allowance associated
 19 with the importation of the applicable covered good.

20 (4) FAILURE TO DECLARE.—

21 (A) IN GENERAL.—Except as provided in
 22 subparagraph (B), an imported covered good
 23 that is not accompanied by a written declara-
 24 tion under this subsection shall not be per-

mitted to enter the customs territory of the
United States.

~~(B) EXCEPTION FOR CERTAIN IMPORTS.—~~

Subparagraph ~~(A)~~ shall not apply to a covered
good of a foreign country if the President deter-
mines that—

(i) the foreign country has taken com-
parable action to limit the greenhouse gas
emissions of the foreign country, in accord-
ance with section 6005;

(ii) the United Nations has identified
the foreign country as among the least-de-
veloped or developing countries; or

(iii) the foreign country is on the ex-
cluded list under subsection ~~(b)(2)~~.

~~(5) CORRECTED DECLARATION.—~~

~~(A) IN GENERAL.—If, after making a dec-~~
~~laration required under this subsection, an im-~~
~~porter has reason to believe that the declaration~~
~~contains information that is not correct, the im-~~
~~porter shall provide a corrected declaration by~~
~~not later than 30 days after the date of dis-~~
~~covery of the error, in accordance with subpara-~~
~~graph (B).~~

(B) METHOD.—A corrected declaration under subparagraph (A) shall be in the form of a letter or other written statement to the Administrator and the office of the U.S. Customs and Border Protection to which the original declaration was submitted.

(d) QUANTITY OF ALLOWANCES REQUIRED.—

(1) METHODOLOGY.—

(A) IN GENERAL.—The Administrator shall establish, by rule, a method for calculating the required number of international reserve allowances that a United States importer must submit, together with a written declaration under subsection (c), for each category of covered goods of each covered foreign country.

(B) FORMULA.—The Administrator shall develop a general formula for calculating the international reserve allowance requirement that applies, on a per unit basis, to each covered good of a covered foreign country that is imported during each compliance year.

(2) INITIAL COMPLIANCE YEAR.—

(A) IN GENERAL.—Subject to subparagraph (B), the methodology under paragraph (1) shall establish an international reserve al-

lowance requirement (per unit imported into the United States) for the initial compliance year for each category of covered goods of each covered foreign country that is equal to the quotient obtained by dividing—

(i) the excess, if any, of the total emissions from the covered foreign country that are attributable to the category of covered goods produced during the most recent year for which data are available, over the baseline emission level of the covered foreign country for that category; and

(ii) the total quantity of the covered good produced in the covered foreign country during the most recent calendar year.

(B) ADJUSTMENTS.—The Administrator shall adjust the requirement under subparagraph (A)—

(i) in accordance with the ratio that—

(I) the quantity of allowances that were allocated at no cost to entities within the industry sector manufacturing the covered goods for the compliance year during which the cov-

1 ered goods were imported into the
 2 United States; bears to
 3 ~~(H)~~ the greenhouse gas emissions
 4 of that industry sector; and
 5 (ii) to take into account the level of
 6 economic development of the covered for-
 7 eign country in which the covered goods
 8 were produced.

9 ~~(3)~~ SUBSEQUENT COMPLIANCE YEARS.—For
 10 each subsequent compliance year, the Administrator
 11 shall revise, as appropriate, the international reserve
 12 allowance requirement applicable to each category of
 13 imported covered goods of each covered foreign
 14 country to reflect changes in the factors described in
 15 paragraph ~~(2)~~(B).

16 ~~(4)~~ PUBLICATION.—Not later than 90 days be-
 17 fore the beginning of each compliance year, the Ad-
 18 ministrator shall publish in the Federal Register a
 19 schedule describing the required number of inter-
 20 national reserve allowances for each category of im-
 21 ported covered goods of each covered foreign coun-
 22 try, as calculated under this subsection.

23 ~~(e)~~ FOREIGN ALLOWANCES AND CREDITS.—

24 ~~(1)~~ FOREIGN ALLOWANCES.—

1 (A) IN GENERAL.—A United States im-
 2 porter may submit, in lieu of an international
 3 reserve allowance issued under this section, a
 4 foreign allowance or similar compliance instru-
 5 ment distributed by a foreign country pursuant
 6 to a cap and trade program that represents a
 7 comparable action.

8 (B) COMMENSURATE CAP AND TRADE PRO-
 9 GRAM.—For purposes of subparagraph (A), a
 10 cap and trade program that represents a com-
 11 parable action shall include any greenhouse gas
 12 regulatory program adopted by a covered for-
 13 eign country to limit the greenhouse gas emis-
 14 sions of the covered foreign country, if the
 15 President certifies that the program—

16 (i)(I) places a quantitative limitation
 17 on the total quantity of greenhouse gas
 18 emissions of the covered foreign country
 19 (expressed in terms of tons emitted per
 20 calendar year); and

21 (II) achieves that limitation through
 22 an allowance trading system;

23 (ii) satisfies such criteria as the Presi-
 24 dent may establish for requirements relat-
 25 ing to the enforceability of the cap and

trade program, including requirements for monitoring, reporting, verification procedures, and allowance tracking; and

(iii) is a comparable action.

(2) FOREIGN CREDITS.—

(A) IN GENERAL.—A United States importer may submit, in lieu of an international reserve allowance issued under this section, a foreign credit or a credit for an international offset project that the Administrator has authorized for use under subtitle E of title II.

(B) APPLICATION.—The limitation on the use of international reserve allowances by regulated entities under subsection (a)(6) shall not apply to a United States importer for purposes of this paragraph.

(f) RETIREMENT OF ALLOWANCES.—The Administrator shall retire each international reserve allowance, foreign allowance, and foreign credit submitted to achieve compliance with this section.

(g) CONSISTENCY WITH INTERNATIONAL AGREEMENTS.—The Administrator, in consultation with the Secretary of State, shall adjust the international reserve allowance requirements established under this section (including the quantity of international reserve allowances re-

1 quired for each category of covered goods of a covered for-
 2 eign country) as the Administrator determines to be nec-
 3 essary to ensure that the United States complies with all
 4 applicable international agreements.

5 (h) TERMINATION.—The international reserve allow-
 6 ance requirements of this section shall not apply to a cov-
 7 ered good of a covered foreign country in any case in
 8 which the President makes a determination described in
 9 subsection (b)(2) with respect to the covered goods of that
 10 covered foreign country.

11 (i) FINAL REGULATIONS.—Not later than January 1,
 12 2019, the Administrator shall promulgate such regulations
 13 as the Administrator determines to be necessary to carry
 14 out this section.

15 **SEC. 6007. ADJUSTMENT OF INTERNATIONAL RESERVE AL-**
 16 **LOWANCE REQUIREMENTS.**

17 (a) IN GENERAL.—Not later than January 1, 2023,
 18 and annually thereafter, the President shall prepare and
 19 submit to Congress a report that assesses the effectiveness
 20 of the applicable international reserve allowance require-
 21 ments under section 6006 with respect to the covered
 22 goods of each covered foreign country.

23 (b) INADEQUATE REQUIREMENTS.—If the President
 24 determines that an applicable international reserve allow-
 25 ance requirement is not adequate to achieve the purposes

1 of this title, the President, simultaneously with the sub-
 2 mission of the report under subsection (a), shall—

3 (1) adjust the requirement; or

4 (2) take such other action as the President de-
 5 termines to be necessary to improve the effectiveness
 6 of the requirement, in accordance with all applicable
 7 international agreements.

8 (c) EFFECTIVE DATE.—An adjustment under sub-
 9 section (b)(1) shall take effect beginning on January 1
 10 of the compliance year immediately following the date on
 11 which the adjustment is made.

12 **TITLE VII—REVIEWS**

13 **SEC. 7001. NATIONAL ACADEMY OF SCIENCES REVIEW.**

14 (a) REPORT.—

15 (1) IN GENERAL.—Not later than January 1,
 16 2012, and every 3 years thereafter, the Adminis-
 17 trator shall offer to enter into a contract with the
 18 National Academy of Sciences under which the
 19 Academy shall submit to Congress and the Adminis-
 20 trator reports evaluating the implementation of this
 21 Act.

22 (2) CONTENTS OF REPORT.—Each report sub-
 23 mitted to Congress under paragraph (1) shall in-
 24 clude an analysis of—

1 (A) the extent to which the emission reduc-
2 tions required under this Act are being
3 achieved;

4 (B) the extent to which the emission re-
5 ductions achieved under this Act, taken to-
6 gether with actual steps taken by other coun-
7 tries to reduce greenhouse gas emissions; is pre-
8 dicted to stabilize atmospheric greenhouse gas
9 concentrations at a level adequate to forestall
10 dangerous anthropogenic interference with the
11 climate system;

12 (C) whether an increase of global average
13 temperature in excess of 3.6 degrees Fahrenheit
14 (2 degrees Celsius) above the preindustrial av-
15 erage has occurred or is more likely than not to
16 occur in the foreseeable future as a result of
17 anthropogenic climate change;

18 (D)(i) predicted changes in ocean acidity;
19 the extent of coral reefs; and other indicators of
20 ocean ecosystem health due to anthropogenic
21 carbon dioxide; and

22 (ii) any additional actions that should be
23 taken by the United States or other countries
24 to protect the health of the oceans;

1 ~~(E)~~ the status of the best available science
 2 and the status of technologies to reduce, se-
 3 quester, or avoid greenhouse gas emissions;

4 ~~(F)~~ whether the percentage of allowances
 5 for any calendar year that are auctioned, allo-
 6 cated, or devoted to other purposes under this
 7 Act should be modified;

8 ~~(G)~~ the effectiveness of auction revenues in
 9 meeting the stated purposes of this Act; and

10 ~~(H)~~ whether additional measures, including
 11 an increase in the earned income tax credit, a
 12 reduction in payroll taxes, or the implementa-
 13 tion of electronic benefit transfers by State
 14 health and human services agencies to reach
 15 low-income individuals who are not required to
 16 file Federal income tax returns, are needed to
 17 help low- and moderate-income individuals re-
 18 spond to changes in the cost of energy-related
 19 goods and services.

20 ~~(b)~~ TECHNOLOGY REPORTS.—

21 ~~(1)~~ DEFINITION.—In this subsection, the term
 22 “technologically infeasible,” with respect to a tech-
 23 nology, means that the technology—

24 ~~(A)~~ will not be demonstrated beyond lab-
 25 oratory-scale conditions;

1 ~~(B)~~ would be unsafe;

2 ~~(C)~~ would not reliably reduce greenhouse
3 gas emissions; or

4 ~~(D)~~ would prevent the activity to which the
5 technology applies from meeting or performing
6 the primary purpose of the activity (such as
7 generating electricity or transporting goods or
8 individuals).

9 ~~(2) REPORTS.~~—Not later than 180 days after
10 the date of enactment of this Act, the Administrator
11 shall offer to enter into a contract with the National
12 Academy of Sciences under which the Academy, not
13 later than 2 years after the date of enactment of
14 this Act and every 3 years thereafter, shall submit
15 to Congress and the Administrator a report that de-
16 scribes or analyzes—

17 ~~(A)~~ the status of current greenhouse gas
18 emission reduction technologies, including—

19 ~~(i)~~ technologies for capture and dis-
20 posal of greenhouse gases;

21 ~~(ii)~~ efficiency improvement tech-
22 nologies;

23 ~~(iii)~~ zero-greenhouse gas emitting en-
24 ergy technologies; and

1 (iv) above- and below-ground biological
2 sequestration technologies;

3 (B) whether the requirements of this Act
4 (including regulations promulgated under this
5 Act)—

6 (i) promote the development and deployment
7 of greenhouse gas emission reduction
8 technologies; or

9 (ii) mandate a level of emission control
10 or reduction that, based on available
11 or expected technology, will be technologically
12 infeasible at the time at which the
13 requirements become effective;

14 (C) the projected date on which any technology
15 determined to be technologically infeasible
16 will become technologically feasible;

17 (D) whether any technology determined to
18 be technologically infeasible cannot reasonably
19 be expected to become technologically feasible
20 prior to calendar year 2050; and

21 (E) the costs of available alternative greenhouse
22 gas emission reduction strategies that
23 could be used or pursued in lieu of any technologies
24 that are determined to be technologically
25 infeasible.

1 **SEC. 7002. TRANSPORTATION SECTOR REVIEW.**

2 (a) REVIEW.—Not later than January 1, 2010, the
3 Administrator shall conduct a comprehensive review and
4 analysis to determine whether any of the following have
5 occurred:

6 (1)(A) The motor vehicle fuel and motor vehicle
7 and nonroad regulations within the scope of Execu-
8 tive Order 13432 (72 Fed. Reg. 27717; relating to
9 cooperation among agencies in protecting the envi-
10 ronment with respect to greenhouse gas emissions
11 from motor vehicles, nonroad vehicles, and nonroad
12 engines) have been finalized and implemented by
13 Federal agencies and departments.

14 (B) Any other transportation-related programs,
15 including corporate average fuel economy standard
16 reform, greenhouse gas vehicle emissions standards,
17 renewable fuel volume mandates, low carbon fuel
18 standards, and activities to reduce vehicle miles trav-
19 eled have been finalized and implemented by a Fed-
20 eral agency or department.

21 (2) Any regulation or program described in
22 paragraph (1) is expected to achieve at least 1 of the
23 following, as compared to the baseline greenhouse
24 gas emissions consistent with the reference case con-
25 tained in the report of the Energy Information Ad-

1 ministration entitled “Annual Energy Outlook
2 2006”:

3 (A) At least a 6.2-percent reduction in cu-
4 mulative greenhouse gas emissions from the
5 light-duty motor vehicle sector, including light-
6 duty vehicles and light-duty trucks, during the
7 period beginning on January 1, 2010, and end-
8 ing on December 31, 2020.

9 (B) A cumulative reduction of approxi-
10 mately 1,140,000 metric tons of carbon dioxide
11 equivalent, measured on a full fuel cycle basis.

12 (b) REPORT.—If the Administrator determines that
13 a reduction described in subsection (a)(2)(A) will not be
14 achieved, the Administrator shall submit to Congress, not
15 later than January 1, 2010, a report describing—

16 (1) any additional action of the Administrator
17 that will be necessary to reduce greenhouse gas
18 emissions from the light-duty motor vehicle sector;
19 and

20 (2) recommendations of the Administrator with
21 respect to actions that could be established by Con-
22 gress to ensure that the United States transpor-
23 tation sector will achieve—

24 (A) the reductions described in subsection
25 (a)(2)(B); and

1 ~~(B) any additional reductions necessary for~~
 2 that sector to assume an equitable share of re-
 3 sponsibility for reducing greenhouse gas emis-
 4 sions.

5 **SEC. 7003. ADAPTATION REVIEW.**

6 ~~(a) REGIONAL ESTIMATES.—~~

7 ~~(1) ESTIMATES.—~~

8 ~~(A) IN GENERAL.—The Administrator, in~~
 9 consultation with the officials described in para-
 10 graph ~~(2)~~ and relevant State agencies, shall
 11 conduct 6 regional infrastructure cost assess-
 12 ments in various regions of the United States,
 13 and a national cost assessment, to provide esti-
 14 mates of the range of costs that should be an-
 15 ticipated for adaptation to the impacts of eli-
 16 mate change.

17 ~~(B) VARIOUS PROBABILITIES.—The Ad-~~
 18 ministrator shall develop the estimates under
 19 subparagraph ~~(A)~~ for low, medium, and high
 20 probabilities of climate change and the potential
 21 impacts of climate change.

22 ~~(2) DESCRIPTION OF OFFICIALS.—The officials~~
 23 referred to in paragraph ~~(1)~~ are—

24 ~~(A) the Secretary of Agriculture;~~

25 ~~(B) the Secretary of Commerce;~~

- 1 (C) the Secretary of Defense;
- 2 (D) the Secretary of Energy;
- 3 (E) the Secretary of Health and Human
- 4 Services;
- 5 (F) the Secretary of Homeland Security;
- 6 (G) the Secretary of Housing and Urban
- 7 Development;
- 8 (H) the Secretary of the Interior;
- 9 (I) the Secretary of Transportation;
- 10 (J) the Director of United States Geologi-
- 11 cal Survey; and
- 12 (K) the heads of such other Federal agen-
- 13 cies and departments as the Administrator de-
- 14 termines to be necessary.

15 ~~(3) SUBMISSION TO CONGRESS.~~—Not later than
 16 1 year after the date of enactment of this Act, the
 17 Administrator shall submit to Congress a report de-
 18 scribing the results of the assessments conducted
 19 under this subsection.

20 ~~(b) ADAPTATION PLAN.~~—

21 ~~(1) IN GENERAL.~~—Not later than 180 days
 22 after the date of enactment of this Act, the Adminis-
 23 trator shall submit to Congress a climate change ad-
 24 aptation plan for the United States, based on—

1 (A) assessments performed by the United
 2 Nations Intergovernmental Panel on Climate
 3 Change in accordance with the Global Change
 4 Research Act of 1990 (15 U.S.C. 2921 et seq.);
 5 and

6 (B) any other scientific, peer-reviewed re-
 7 gional assessments.

8 (2) INCLUSIONS.—The adaptation plan under
 9 paragraph (1) shall include—

10 (A) a prioritized list of vulnerable systems
 11 and regions in the United States;

12 (B) requirements for coordination between
 13 Federal, State, and local governments to ensure
 14 that key public infrastructure, safety, health,
 15 and land use planning and control issues are
 16 addressed;

17 (C) requirements for coordination among
 18 the Federal Government, industry, and commu-
 19 nities;

20 (D) an assessment of climate change
 21 science research needs, including probabilistic
 22 assessments as an aid to planning;

23 (E) an assessment of climate change tech-
 24 nology needs; and

1 (F) regional and national cost assessments
 2 for the range of costs that should be anticipated
 3 for adapting to the impacts of climate change.

4 (c) IMPACTS OF CLIMATE CHANGE ON LOW-INCOME
 5 POPULATIONS.—

6 (1) IN GENERAL.—The Administrator shall con-
 7 duct research on the impact of climate change on
 8 low-income populations in all countries, including—

9 (A) an assessment of the adverse impact of
 10 climate change on—

11 (i) low-income populations in the
 12 United States; and

13 (ii) developing countries;

14 (B)(i) an identification of appropriate cli-
 15 mate change adaptation measures and pro-
 16 grams for developing countries and low-income
 17 populations;

18 (ii) an assessment of the impact of the
 19 measures and programs on low-income popu-
 20 lations; and

21 (C) an estimate of the costs of developing
 22 and implementing those climate change adapta-
 23 tion and mitigation programs.

24 (2) REPORT.—Not later than 1 year after the
 25 date of enactment of this Act, the Administrator

1 shall submit to Congress a report describing the re-
 2 sults of the research conducted under paragraph (1).

3 **TITLE VII—FRAMEWORK FOR**
 4 **GEOLOGICAL SEQUESTRA-**
 5 **TION OF CARBON DIOXIDE**

6 **SEC. 8001. NATIONAL DRINKING WATER REGULATIONS.**

7 (a) ~~IN GENERAL.~~—Section 1421 of the Safe Drink-
 8 ing Water Act (42 U.S.C. 300h) is amended—

9 (1) in subsection (b)(1), by striking “subsection
 10 (d)(2)” and inserting “subsection (e)(2)”;

11 (2) by redesignating subsection (d) as sub-
 12 section (e); and

13 (3) by inserting after subsection (e) the fol-
 14 lowing:

15 “(d) ~~CARBON DIOXIDE.~~—

16 “(1) ~~REGULATIONS.~~—Not later than 1 year
 17 after the date of enactment of the America’s Climate
 18 Security Act of 2007, the Administrator shall pro-
 19 mulgate regulations for permitting commercial-scale
 20 underground injection of carbon dioxide for purposes
 21 of geological sequestration to address climate
 22 change, including provisions—

23 “(A) for monitoring and controlling the
 24 long-term storage of carbon dioxide and avoid-
 25 ing, to the maximum extent practicable, any re-

1 lease of carbon dioxide into the atmosphere;
2 and for ensuring protection of underground
3 sources of drinking water, human health, and
4 the environment; and

5 “(B) relating to long-term liability associ-
6 ated with commercial-scale geological sequestra-
7 tion.

8 “(2) SUBSEQUENT REPORTS.—Not later than 5
9 years after the date on which regulations are pro-
10 mulgated pursuant to paragraph (1), and not less
11 frequently than once every 5 years thereafter, the
12 Administrator shall submit to Congress a report that
13 contains an evaluation of the effectiveness of the
14 regulations, based on current knowledge and experi-
15 ence, with particular emphasis on any new informa-
16 tion on potential impacts of commercial-scale geo-
17 logical sequestration on drinking water, human
18 health, and the environment.

19 “(3) REVISION.—If the Administrator deter-
20 mines, based on a report under paragraph (2), that
21 regulations promulgated pursuant to paragraph (1)
22 require revision, the Administrator shall promulgate
23 revised regulations not later than 1 year after the
24 date on which the applicable report is submitted to
25 Congress under paragraph (2).”.

1 (b) CONFORMING AMENDMENT.—Section 1447(a)(4)
 2 of the Safe Drinking Water Act (42 U.S.C. 300j-6(a)(4))
 3 is amended by striking “section 1421(d)(2)” and inserting
 4 “section 1421(e)(2)”.

5 **SEC. 8002. ASSESSMENT OF GEOLOGICAL STORAGE CAPAC-**
 6 **ITY FOR CARBON DIOXIDE.**

7 (a) DEFINITIONS.—In this section:

8 (1) ASSESSMENT.—The term “assessment”
 9 means the national assessment of capacity for ear-
 10 bon dioxide completed under subsection (f).

11 (2) CAPACITY.—The term “capacity” means the
 12 portion of a storage formation that can retain ear-
 13 bon dioxide in accordance with the requirements (in-
 14 cluding physical, geological, and economic require-
 15 ments) established under the methodology developed
 16 under subsection (b).

17 (3) ENGINEERED HAZARD.—The term “engi-
 18 neered hazard” includes the location and completion
 19 history of any well that could affect a storage forma-
 20 tion or capacity.

21 (4) RISK.—The term “risk” includes any risk
 22 posed by a geomechanical, geochemical, hydrogeo-
 23 logical, structural, or engineered hazard.

1 (5) SECRETARY.—The term “Secretary” means
2 the Secretary of the Interior, acting through the Di-
3 rector of the United States Geological Survey.

4 (6) STORAGE FORMATION.—The term “storage
5 formation” means a deep saline formation,
6 unmineable coal seam, or oil or gas reservoir that is
7 capable of accommodating a volume of industrial
8 carbon dioxide.

9 (b) METHODOLOGY.—Not later than 1 year after the
10 date of enactment of this Act, the Secretary shall develop
11 a methodology for conducting an assessment under sub-
12 section (f), taking into consideration—

13 (1) the geographical extent of all potential stor-
14 age formations in all States;

15 (2) the capacity of the potential storage forma-
16 tions;

17 (3) the injectivity of the potential storage for-
18 mations;

19 (4) an estimate of potential volumes of oil and
20 gas recoverable by injection and storage of industrial
21 carbon dioxide in potential storage formations;

22 (5) the risk associated with the potential stor-
23 age formations; and

24 (6) the work performed to develop the Carbon
25 Sequestration Atlas of the United States and Can-

1 ada completed by the Department of Energy in April
2 2006.

3 ~~(c) COORDINATION.—~~

4 ~~(1) FEDERAL COORDINATION.—~~

5 ~~(A) CONSULTATION.—The Secretary shall~~
6 ~~consult with the Secretary of Energy and the~~
7 ~~Administrator regarding data sharing and the~~
8 ~~format, development of methodology, and con-~~
9 ~~tent of the assessment to ensure the maximum~~
10 ~~usefulness and success of the assessment.~~

11 ~~(B) COOPERATION.—The Secretary of En-~~
12 ~~ergy and the Administrator shall cooperate with~~
13 ~~the Secretary to ensure, to the maximum extent~~
14 ~~practicable, the usefulness and success of the~~
15 ~~assessment.~~

16 ~~(2) STATE COORDINATION.—The Secretary~~
17 ~~shall consult with State geological surveys and other~~
18 ~~relevant entities to ensure, to the maximum extent~~
19 ~~practicable, the usefulness and success of the assess-~~
20 ~~ment.~~

21 ~~(d) EXTERNAL REVIEW AND PUBLICATION.—On~~
22 ~~completion of the methodology under subsection (b), the~~
23 ~~Secretary shall—~~

1 (1) publish the methodology and solicit com-
 2 ments from the public and the heads of affected
 3 Federal and State agencies;

4 (2) establish a panel of individuals with exper-
 5 tise in the matters described in paragraphs (1)
 6 through (5) of subsection (b) composed, as appro-
 7 priate, of representatives of Federal agencies, insti-
 8 tutions of higher education, nongovernmental organi-
 9 zations, State organizations, industry, and inter-
 10 national geosciences organizations to review the
 11 methodology and comments received under para-
 12 graph (1); and

13 (3) on completion of the review under para-
 14 graph (2), publish in the Federal Register the re-
 15 vised final methodology.

16 (e) PERIODIC UPDATES.—The methodology devel-
 17 oped under this section shall be updated periodically (in-
 18 cluding not less frequently than once every 5 years) to in-
 19 corporate new data as the data becomes available.

20 (f) NATIONAL ASSESSMENT.—

21 (1) IN GENERAL.—Not later than 2 years after
 22 the date of publication of the methodology under
 23 subsection (d)(3), the Secretary, in consultation with
 24 the Secretary of Energy and State geological sur-
 25 veys, shall complete a national assessment of the ea-

1 capacity for carbon dioxide storage in accordance with
 2 the methodology.

3 ~~(2) GEOLOGICAL VERIFICATION.—As part of~~
 4 the assessment, the Secretary shall carry out a drill-
 5 ing program to supplement the geological data rel-
 6 evant to determining storage capacity in carbon di-
 7 oxide in geological storage formations, including—

8 ~~(A) well log data;~~

9 ~~(B) core data; and~~

10 ~~(C) fluid sample data.~~

11 ~~(3) PARTNERSHIP WITH OTHER DRILLING PRO-~~
 12 GRAMS.—As part of the drilling program under
 13 paragraph ~~(2)~~, the Secretary shall enter into part-
 14 nerships, as appropriate, with other entities to col-
 15 lect and integrate data from other drilling programs
 16 relevant to the storage of carbon dioxide in geologic
 17 formations.

18 ~~(4) INCORPORATION INTO NATCARB.—~~

19 ~~(A) IN GENERAL.—On completion of the~~
 20 assessment, the Secretary shall incorporate the
 21 results of the assessment using, to the max-
 22 imum extent practicable—

23 ~~(i) the NatCarb database; or~~

1 (ii) a new database developed by the
2 Secretary, as the Secretary determines to
3 be necessary.

4 (B) RANKING.—The database shall include
5 the data necessary to rank potential storage
6 sites—

- 7 (i) for capacity and risk;
8 (ii) across the United States;
9 (iii) within each State;
10 (iv) by formation; and
11 (v) within each basin.

12 (5) REPORT.—Not later than 180 days after
13 the date on which the assessment is completed, the
14 Secretary shall submit to the Committee on Energy
15 and Natural Resources of the Senate and the Com-
16 mittee on Science and Technology of the House of
17 Representatives a report describing the results of the
18 assessment.

19 (6) PERIODIC UPDATES.—The assessment shall
20 be updated periodically (including not less frequently
21 than once every 5 years) as necessary to support
22 public and private sector decisionmaking, as deter-
23 mined by the Secretary.

1 **SEC. 8003. STUDY OF THE FEASIBILITY RELATING TO CON-**
2 **STRUCTION OF PIPELINES AND GEOLOGICAL**
3 **CARBON DIOXIDE SEQUESTRATION ACTIVI-**
4 **TIES.**

5 (a) IN GENERAL.—The Secretary of Energy, in co-
6 ordination with the Administrator, the Federal Energy
7 Regulatory Commission, the Secretary of Transportation,
8 and the Secretary of the Interior, shall conduct a study
9 to assess the feasibility of the construction of—

10 (1) pipelines to be used for the transportation
11 of carbon dioxide for the purpose of sequestration or
12 enhanced oil recovery; and

13 (2) geological carbon dioxide sequestration fa-
14 cilities.

15 (b) SCOPE.—The study shall consider—

16 (1) any barrier or potential barrier in existence
17 as of the date of enactment of this Act, including
18 any technical, siting, financing, or regulatory bar-
19 rier, relating to—

20 (A) the construction of pipelines to be used
21 for the transportation of carbon dioxide for the
22 purpose of sequestration or enhanced oil recov-
23 ery; or

24 (B) the geological sequestration of carbon
25 dioxide;

1 (2) any market risk (including throughput risk)
2 relating to—

3 (A) the construction of pipelines to be used
4 for the transportation of carbon dioxide for the
5 purpose of sequestration or enhanced oil recovery;
6 or

7 (B) the geological sequestration of carbon
8 dioxide;

9 (3) any regulatory, financing, or siting option
10 that, as determined by the Secretary of Energy,
11 would—

12 (A) mitigate any market risk described in
13 paragraph (2); or

14 (B) help ensure the construction of pipe-
15 lines dedicated to the transportation of carbon
16 dioxide for the purpose of sequestration or en-
17 hanced oil recovery;

18 (4) the means by which to ensure the safe han-
19 dling and transportation of carbon dioxide;

20 (5) any preventive measure to ensure the inte-
21 gration of pipelines to be used for the transportation
22 of carbon dioxide for the purpose of sequestration or
23 enhanced oil recovery; and

24 (6) any other appropriate use, as determined by
25 the Secretary of Energy, in coordination with the

1 Administrator, the Federal Energy Regulatory Com-
2 mission, the Secretary of Transportation, and the
3 Secretary of the Interior.

4 (c) REPORT.—Not later than 180 days after the date
5 of enactment of this Act, the Secretary of Energy shall
6 submit to the Congress a report describing the results of
7 the study.

8 **SEC. 8004. LIABILITIES FOR CLOSED GEOLOGICAL STOR-**
9 **AGE SITES.**

10 (a) ESTABLISHMENT OF TASK FORCE.—As soon as
11 practicable after the date of enactment of this Act, the
12 Administrator shall establish a task force, to be composed
13 of an equal number of stakeholders, the public, subject
14 matter experts, and members of the private sector, to con-
15 duct a study of the legal framework, environmental and
16 safety considerations, and cost implications of potential
17 Federal assumption of liability with respect to closed geo-
18 logical storage sites.

19 (b) REPORT.—Not later than 18 months after the
20 date of enactment of this Act, the task force established
21 under subsection (a) shall submit to Congress a report de-
22 scribing the results of the study conducted under sub-
23 section (a), including recommendations of the task force,
24 if any, with respect to the framework described in that
25 subsection.

1 **TITLE IX—MISCELLANEOUS**

2 **SEC. 9001. PARAMOUNT INTEREST WAIVER.**

3 (a) IN GENERAL.—If the President determines that
4 a national security emergency exists and, in light of infor-
5 mation that was not available as of the date of enactment
6 of this Act, it is in the paramount interest of the United
7 States to modify any requirement under this Act to mini-
8 mize the effects of the emergency, the President may,
9 after opportunity for public notice and comment, tempo-
10 rarily adjust, suspend, or waive any regulations promul-
11 gated pursuant to this Act to achieve that minimization.

12 (b) CONSULTATION.—In making an emergency deter-
13 mination under subsection (a), the President shall, to the
14 maximum extent practicable, consult with and take into
15 account any advice received from—

16 (1) the National Academy of Sciences;

17 (2) the Secretary of Energy; and

18 (3) the Administrator.

19 (c) JUDICIAL REVIEW.—An emergency determination
20 under subsection (a) shall be subject to judicial review in
21 accordance with section 307 of the Clean Air Act (42
22 U.S.C. 7607).

1 **SEC. 9002. CORPORATE ENVIRONMENTAL DISCLOSURE OF**
 2 **CLIMATE CHANGE RISKS.**

3 (a) **REGULATIONS.**—Not later than 2 years after the
 4 date of enactment of this Act, the Securities and Ex-
 5 change Commission (referred to in this section as the
 6 “Commission”) shall promulgate regulations in accord-
 7 ance with section 13 of the Securities Exchange Act of
 8 1934 (15 U.S.C. 78m) directing each issuer of securities
 9 under that Act, to inform, based on the current expecta-
 10 tions and projections and knowledge of facts of the issuer,
 11 securities investors of material risks relating to—

12 (1) the financial exposure of the issuer because
 13 of the net global warming pollution emissions of the
 14 issuer; and

15 (2) the potential economic impacts of global
 16 warming on the interests of the issuer.

17 (b) **UNIFORM FORMAT FOR DISCLOSURE.**—In ear-
 18 rying out subsection (a), the Commission shall enter into
 19 an agreement with the Financial Accounting Standards
 20 Board, or another appropriate organization that estab-
 21 lishes voluntary standards, to develop a uniform format
 22 for disclosing to securities investors information on the
 23 risks described in subsection (a).

24 (c) **INTERIM INTERPRETIVE RELEASE.**—

25 (1) **IN GENERAL.**—Not later than 1 year after
 26 the date of enactment of this Act, the Commission

1 shall issue an interpretive release clarifying that
 2 under items 101 and 303 of Regulation S-K of the
 3 Commission under part 229 of title 17, Code of Fed-
 4 eral Regulations (as in effect on the date of enact-
 5 ment of this Act)—

6 (A) the commitments of the United States
 7 to reduce emissions of global warming pollution
 8 under the United Nations Framework Conven-
 9 tion on Climate Change, done at New York on
 10 May 9, 1992, are considered to be a material
 11 effect; and

12 (B) global warming constitutes a known
 13 trend.

14 (2) PERIOD OF EFFECTIVENESS.—The inter-
 15 pretive release issued under paragraph (1) shall re-
 16 main in effect until the effective date of the final
 17 regulations promulgated under subsection (a).

18 **SEC. 9003. ADMINISTRATIVE PROCEDURE AND JUDICIAL**
 19 **REVIEW.**

20 (a) RULEMAKING PROCEDURES.—Any rule, require-
 21 ment, regulation, method, standard, program, determina-
 22 tion, or final action made or promulgated pursuant to any
 23 title of this Act, with the exception of sections 3101, 3201,
 24 3301, and 3901, shall be subject to the rulemaking proce-

1 dures described in sections ~~551~~ through ~~557~~ of title ~~5~~,
 2 United States Code.

3 (b) ~~ENFORCEMENT.~~—Each provision of this Act (in-
 4 cluding provisions relating to mandatory duties of the Ad-
 5 ministrator) shall be fully enforceable pursuant to sections
 6 ~~113, 303, and 304~~ of the Clean Air Act (~~42 U.S.C. 7413,~~
 7 ~~7603, 7604~~).

8 (c) ~~RECORDKEEPING, INSPECTIONS, MONITORING,~~
 9 ~~ENTRY, AND SUBPOENAS.~~—The Administrator shall have
 10 the same powers and authority provided under sections
 11 ~~114 and 307(a)~~ of the Clean Air Act (~~42 U.S.C. 7414,~~
 12 ~~7607(a)~~) in carrying out, administering, and enforcing
 13 this Act.

14 (d) ~~JUDICIAL REVIEW.~~—A petition for judicial review
 15 of any regulation promulgated, or final action carried out,
 16 by the Administrator pursuant to this Act may be filed
 17 only—

18 (1) in the United States Court of Appeals for
 19 the District of Columbia; and

20 (2) in accordance with section ~~307(b)~~ of the
 21 Clean Air Act (~~42 U.S.C. 7607(b)~~).

22 **SEC. 9004. RETENTION OF STATE AUTHORITY.**

23 (a) ~~IN GENERAL.~~—Except as provided in subsection
 24 (b), in accordance with section ~~116~~ of the Clean Air Act
 25 (~~42 U.S.C. 7416~~) and section ~~510~~ of the Federal Water

1 Pollution Control Act (33 U.S.C. 1370), nothing in this
 2 Act precludes or abrogates the right of any State to adopt
 3 or enforce—

4 (1) any standard, cap, limitation, or prohibition
 5 relating to emissions of greenhouse gas; or

6 (2) any requirement relating to control, abate-
 7 ment, or avoidance of emissions of greenhouse gas.

8 (b) EXCEPTION.—Notwithstanding subsection (a), no
 9 State may adopt a standard, cap, limitation, prohibition,
 10 or requirement that is less stringent than the applicable
 11 standard, cap, limitation, prohibition, or requirement
 12 under this Act.

13 **SEC. 9005. TRIBAL AUTHORITY.**

14 For purposes of this Act, the Administrator may
 15 treat any federally recognized Indian tribe as a State, in
 16 accordance with section 301(d) of the Clean Air Act (42
 17 U.S.C. 7601(d)).

18 **SEC. 9006. AUTHORIZATION OF APPROPRIATIONS.**

19 There are authorized to be appropriated such sums
 20 as are necessary to carry out this Act.

21 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

22 (a) *SHORT TITLE.*—This Act may be cited as the
 23 “Lieberman-Warner Climate Security Act of 2007”.

24 (b) *TABLE OF CONTENTS.*—The table of contents of this
 25 Act is as follows:

Sec. 1. Short title; table of contents.

- Sec. 2. Findings.*
- Sec. 3. Purposes.*
- Sec. 4. Definitions.*

TITLE I—CAPPING GREENHOUSE GAS EMISSIONS

Subtitle A—Tracking Emissions

- Sec. 1101. Purpose.*
- Sec. 1102. Definitions.*
- Sec. 1103. Reporting requirements.*
- Sec. 1104. Data quality and verification.*
- Sec. 1105. Federal greenhouse gas registry.*
- Sec. 1106. Enforcement.*

Subtitle B—Reducing Emissions

- Sec. 1201. Emission allowance account.*
- Sec. 1202. Compliance obligation.*
- Sec. 1203. Penalty for noncompliance.*
- Sec. 1204. Rulemaking.*

TITLE II—MANAGING AND CONTAINING COSTS EFFICIENTLY

Subtitle A—Trading

- Sec. 2101. Sale, exchange, and retirement of emission allowances.*
- Sec. 2102. No restriction on transactions.*
- Sec. 2103. Allowance transfer system.*
- Sec. 2104. Allowance tracking system.*

Subtitle B—Banking

- Sec. 2201. Indication of calendar year.*
- Sec. 2202. Effect of time.*

Subtitle C—Borrowing

- Sec. 2301. Regulations.*
- Sec. 2302. Term.*
- Sec. 2303. Repayment with interest.*

Subtitle D—Offsets

- Sec. 2401. Outreach initiative on revenue enhancement for agricultural producers.*
- Sec. 2402. Establishment of domestic offset program.*
- Sec. 2403. Eligible offset project types.*
- Sec. 2404. Project initiation and approval.*
- Sec. 2405. Offset verification and issuance of allowances.*
- Sec. 2406. Tracking of reversals for sequestration projects.*
- Sec. 2407. Examinations.*
- Sec. 2408. Timing and the provision of offset allowances.*
- Sec. 2409. Offset registry.*
- Sec. 2410. Environmental considerations.*
- Sec. 2411. Program review.*
- Sec. 2412. Retail carbon offsets.*

Subtitle E—International Emission Allowances

- Sec. 2501. Use of international emission allowances.*
Sec. 2502. Regulations.
Sec. 2503. Facility certification.

Subtitle F—Carbon Market Efficiency Board

- Sec. 2601. Purposes.*
Sec. 2602. Establishment of Carbon Market Efficiency Board.
Sec. 2603. Duties.
Sec. 2604. Powers.
Sec. 2605. Estimate of costs to economy of limiting greenhouse gas emissions.

*TITLE III—ALLOCATING AND DISTRIBUTING ALLOWANCES**Subtitle A—Auctions*

- Sec. 3101. Allocation for early auctions.*
Sec. 3102. Allocation for annual auctions.

Subtitle B—Early Action

- Sec. 3201. Allocation.*
Sec. 3202. Distribution.

Subtitle C—States

- Sec. 3301. Allocation for energy savings.*
Sec. 3302. Allocation for States with programs that exceed Federal emission reduction targets.
Sec. 3303. General allocation.
Sec. 3304. Allocation for mass transit.

Subtitle D—Electricity Consumers

- Sec. 3401. Allocation.*
Sec. 3402. Distribution.
Sec. 3403. Use.
Sec. 3404. Reporting.

Subtitle E—Natural Gas Consumers

- Sec. 3501. Allocation.*
Sec. 3502. Distribution.
Sec. 3503. Use.
Sec. 3504. Reporting.

Subtitle F—Bonus Allowances for Carbon Capture and Geological Sequestration

- Sec. 3601. Allocation.*
Sec. 3602. Qualifying projects.
Sec. 3603. Distribution.
Sec. 3604. 10-Year limit.
Sec. 3605. Exhaustion of bonus allowance account.

Subtitle G—Domestic Agriculture and Forestry

- Sec. 3701. Allocation.*

- Sec. 3702. Agricultural and forestry greenhouse gas management research.*
Sec. 3703. Distribution.

Subtitle H—International Forest Protection

- Sec. 3801. Findings.*
Sec. 3802. Definition of forest carbon activities.
Sec. 3803. Allocation.
Sec. 3804. Definition and eligibility requirements.
Sec. 3805. International forest carbon activities.
Sec. 3806. Reviews and discount.

Subtitle I—Transition Assistance

- Sec. 3901. General allocation and distribution.*
Sec. 3902. Distributing emission allowances to owners and operators of fossil fuel-fired electric power generating facilities.
Sec. 3903. Distributing additional emission allowances to rural electric cooperatives.
Sec. 3904. Distributing emission allowances to owners and operators of energy intensive manufacturing facilities.
Sec. 3905. Distributing emission allowances to owners and operators of facilities and other entities that produce or import petroleum-based fuel.
Sec. 3906. Distributing emission allowances to hydrofluorocarbon producers and importers.

Subtitle J—Reducing Methane Emissions From Landfills and Coal Mines

- Sec. 3907. Allocation.*
Sec. 3908. Distribution.

TITLE IV—AUCTIONS AND USES OF AUCTION PROCEEDS

Subtitle A—Funds

- Sec. 4101. Establishment.*
Sec. 4102. Amounts in Funds.

Subtitle B—Climate Change Credit Corporation

- Sec. 4201. Establishment.*
Sec. 4202. Applicable laws.
Sec. 4203. Board of directors.
Sec. 4204. Review and audit by Comptroller General.

Subtitle C—Auctions

- Sec. 4301. Early auctions.*
Sec. 4302. Annual auctions.

Subtitle D—Energy Technology Deployment

- Sec. 4401. General allocations.*
Sec. 4402. Zero- or low-carbon energy technologies deployment.
Sec. 4403. Advanced coal and sequestration technologies program.
Sec. 4404. Fuel from cellulosic biomass.
Sec. 4405. Advanced technology vehicles manufacturing incentive program.
Sec. 4406. Sustainable energy program.

Subtitle E—Energy Consumers

- Sec. 4501. Proportions of funding availability.*
Sec. 4502. Rural energy assistance program.

Subtitle F—Climate Change Worker Training Program

- Sec. 4601. Funding.*
Sec. 4602. Purposes.
Sec. 4603. Establishment.
Sec. 4604. Activities.
Sec. 4605. Worker protections and nondiscrimination requirements.
Sec. 4606. Workforce training and safety.

Subtitle G—Adaptation Program for Natural Resources in United States and Territories

- Sec. 4701. Definitions.*
Sec. 4702. Adaptation fund.

Subtitle H—International Climate Change Adaptation and National Security Program

- Sec. 4801. Findings.*
Sec. 4802. Purposes.
Sec. 4803. Establishment.
Sec. 4804. Funding.

Subtitle I—Emergency Firefighting Programs

- Sec. 4901. Findings.*
Sec. 4902. Bureau of Land Management emergency firefighting program.
Sec. 4903. Forest Service emergency firefighting program.

*TITLE V—ENERGY EFFICIENCY**Subtitle A—Appliance Efficiency*

- Sec. 5101. Residential boilers.*
Sec. 5102. Regional variations in heating or cooling standards.

Subtitle B—Building Efficiency

- Sec. 5201. Updating State building energy efficiency codes.*
Sec. 5202. Conforming amendment.

TITLE VI—GLOBAL EFFORT TO REDUCE GREENHOUSE GAS EMISSIONS

- Sec. 6001. Definitions.*
Sec. 6002. Purposes.
Sec. 6003. International negotiations.
Sec. 6004. Interagency review.
Sec. 6005. Presidential determinations.
Sec. 6006. International reserve allowance program.
Sec. 6007. Adjustment of international reserve allowance requirements.

TITLE VII—REVIEWS AND RECOMMENDATIONS

- Sec. 7001. National Academy of Sciences Reviews.*
Sec. 7002. Environmental Protection Agency review.
Sec. 7003. Environmental Protection Agency recommendations.
Sec. 7004. Presidential recommendations.
Sec. 7005. Adaptation assessments and plan.
Sec. 7006. Study by Administrator of aviation sector greenhouse gas emissions.

TITLE VIII—FRAMEWORK FOR GEOLOGICAL SEQUESTRATION OF CARBON DIOXIDE

- Sec. 8001. National drinking water regulations.*
Sec. 8002. Assessment of geological storage capacity for carbon dioxide.
Sec. 8003. Study of the feasibility relating to construction of pipelines and geological carbon dioxide sequestration activities.
Sec. 8004. Liabilities for closed geological storage sites.

TITLE IX—MISCELLANEOUS

- Sec. 9001. Paramount interest waiver.*
Sec. 9002. Administrative procedure and judicial review.
Sec. 9003. Retention of State authority.
Sec. 9004. Tribal authority.
Sec. 9005. Rocky Mountain Centers for Study of Coal Utilization.
Sec. 9006. Sun grant center research on compliance with Clean Air Act.
Sec. 9007. Authorization of appropriations.

TITLE X—CONTROL OF HYDROFLUOROCARBON CONSUMPTION

- Sec. 10001. Applicability.*
Sec. 10002. Definitions.
Sec. 10003. Cap on hydrofluorocarbon consumption and importation into United States.
Sec. 10004. Hydrofluorocarbon consumption allowance account.
Sec. 10005. Allocation of hydrofluorocarbon consumption allowances.
Sec. 10006. Compliance obligation.
Sec. 10007. Sale, exchange, and other uses of hydrofluorocarbon consumption allowances.
Sec. 10008. Allowance transfer system.
Sec. 10009. Banking and borrowing.
Sec. 10010. Hydrofluorocarbon destruction allowances.

TITLE XI—AMENDMENTS TO CLEAN AIR ACT

- Sec. 11001. National recycling and emission reduction program.*
Sec. 11002. Servicing of motor vehicle air conditioners.
Sec. 11003. Carbon dioxide reduction.

1 **SEC. 2. FINDINGS.**

2 Congress finds that—

3 (1) unchecked global warming poses a significant
 4 threat to—

1 (A) the national security and economy of
2 the United States;

3 (B) public health and welfare in the United
4 States;

5 (C) the well-being of other countries; and

6 (D) the global environment;

7 (2) under the United Nations Framework Con-
8 vention on Climate Change, done at New York on
9 May 9, 1992, the United States is committed to stabi-
10 lizing greenhouse gas concentrations in the atmos-
11 phere at a level that will prevent dangerous anthropo-
12 genic interference with the climate system;

13 (3) according to the Fourth Assessment Report of
14 the Intergovernmental Panel on Climate Change, sta-
15 bilizing greenhouse gas concentrations in the atmos-
16 phere at a level that will prevent dangerous inter-
17 ference with the climate system will require a global
18 effort to reduce anthropogenic greenhouse gas emis-
19 sions worldwide by 50 to 85 percent below 2000 levels
20 by 2050;

21 (4) prompt, decisive action is critical, since glob-
22 al warming pollutants can persist in the atmosphere
23 for more than a century;

1 (5) *the ingenuity of the people of the United*
2 *States will allow the United States to become a leader*
3 *in curbing global warming;*

4 (6) *it is possible and desirable to cap greenhouse*
5 *gas emissions, from sources that together account for*
6 *the majority of those emissions in the United States,*
7 *at or slightly below the current level in 2012, and to*
8 *lower the cap each year between 2012 and 2050, on*
9 *the condition that the system includes—*

10 (A) *cost containment measures;*

11 (B) *periodic review of requirements;*

12 (C) *an aggressive program for deploying*
13 *advanced energy technology;*

14 (D) *programs to assist low- and middle-in-*
15 *come energy consumers; and*

16 (E) *programs to mitigate the impacts of*
17 *any unavoidable global climate change;*

18 (7) *Congress may need to update the emissions*
19 *caps in order to account for continuing scientific data*
20 *and steps taken, or not taken, by foreign countries;*

21 (8) *accurate emission data and timely compli-*
22 *ance with the requirements of the greenhouse gas*
23 *emission reduction and trading program established*
24 *under this Act are needed to ensure that reductions*
25 *are achieved and to provide equity, efficiency, and*

1 *openness in the market for allowances subject to the*
2 *program;*

3 *(9) additional policies external to a cap-and-*
4 *trade program may be required, including with re-*
5 *spect to—*

6 *(A) the transportation sector, where reduc-*
7 *ing greenhouse gas emissions requires changes in*
8 *vehicles, in fuels, and in consumer behavior; and*

9 *(B) the built environment, where reducing*
10 *direct and indirect greenhouse gas emissions re-*
11 *quires changes in buildings, appliances, lighting,*
12 *heating, cooling, and consumer behavior;*

13 *(10) significant and sustained domestic invest-*
14 *ments are required to support an aggressive program*
15 *for developing and deploying advanced technologies to*
16 *reduce greenhouse gas emissions;*

17 *(11) all, or virtually all, emissions of greenhouse*
18 *gases from the combustion of natural gas in the*
19 *United States should be reduced through the inclusion*
20 *in a cap-and-trade system of entities that sell natural*
21 *gas in the United States;*

22 *(12) including natural gas in a cap-and-trade*
23 *system in the United States should be carried out in*
24 *a way that minimizes, to the extent feasible, the num-*

1 *ber of entities required to submit emission allowances*
2 *for the natural gas sold by the entities;*

3 *(13) including natural gas in a cap-and-trade*
4 *system in the United States promotes substantial re-*
5 *ductions in total United States greenhouse gas emis-*
6 *sions while also minimizing, to the extent feasible, the*
7 *activities within the industrial sector that necessitate*
8 *the submission of emission allowances;*

9 *(14) emissions of sulfur dioxide, nitrogen oxides,*
10 *and mercury to the atmosphere from coal-fired electric*
11 *power generating facilities in the United States in-*
12 *flicts harm on the public health, economy, and nat-*
13 *ural resources of the United States;*

14 *(15) fossil fuel-fired electric power generating fa-*
15 *cilities emit approximately 67 percent of the total sul-*
16 *fur dioxide emissions, 23 percent of the total nitrogen*
17 *oxide emissions, 40 percent of the total carbon dioxide*
18 *emissions, and 40 percent of the total mercury emis-*
19 *sions in the United States;*

20 *(16) while the reductions in emissions of sulfur*
21 *dioxide, nitrogen oxides, and mercury that will occur*
22 *in the presence of a declining cap on the greenhouse*
23 *gas emissions from coal-fired electric power gener-*
24 *ating facilities are larger than those that would occur*
25 *in the absence of such a cap, new, stricter Federal*

1 *limits on emissions of sulfur dioxide, nitrogen oxides,*
2 *and mercury may still be needed to protect public*
3 *health; and*

4 *(17) many existing fossil fuel-fired electric power*
5 *generating facilities were exempted by Congress from*
6 *emissions limitations applicable to new and modified*
7 *units based on an expectation by Congress that, over*
8 *time, the units would be retired or updated with new*
9 *pollution control equipment, but many of the exempt-*
10 *ed facilities nevertheless continue to operate and emit*
11 *pollutants at relatively high rates and without new*
12 *pollution control equipment.*

13 **SEC. 3. PURPOSES.**

14 *The purposes of this Act are—*

15 *(1) to establish the core of a Federal program*
16 *that will reduce United States greenhouse gas emis-*
17 *sions substantially enough between 2007 and 2050 to*
18 *avert the catastrophic impacts of global climate*
19 *change; and*

20 *(2) to accomplish that purpose while preserving*
21 *robust growth in the United States economy, creating*
22 *new jobs, and avoiding the imposition of hardship on*
23 *United States citizens.*

24 **SEC. 4. DEFINITIONS.**

25 *In this Act:*

1 (1) *ADDITIONAL; ADDITIONALITY.*—*The terms*
 2 *“additional” and “additionality” mean the extent to*
 3 *which reductions in greenhouse gas emissions or in-*
 4 *creases in sequestration are incremental to business-*
 5 *as-usual, measured as the difference between—*

6 *(A) baseline greenhouse gas fluxes of an off-*
 7 *set project; and*

8 *(B) greenhouse gas fluxes of the offset*
 9 *project.*

10 (2) *ADMINISTRATOR.*—*The term “Adminis-*
 11 *trator” means the Administrator of the Environ-*
 12 *mental Protection Agency.*

13 (3) *BASELINE.*—*The term “baseline” means the*
 14 *greenhouse gas flux or carbon stock that would have*
 15 *occurred in the absence of an offset project.*

16 (4) *BIOLOGICAL SEQUESTRATION; BIOLOGICALLY*
 17 *SEQUESTERED.*—*The terms “biological sequestration”*
 18 *and “biologically sequestered” mean—*

19 *(A) the removal of greenhouse gases from the*
 20 *atmosphere by biological means, such as by*
 21 *growing plants; and*

22 *(B) the storage of those greenhouse gases in*
 23 *the plants or related soils.*

24 (5) *CARBON DIOXIDE EQUIVALENT.*—*The term*
 25 *“carbon dioxide equivalent” means, for each green-*

1 *house gas, the quantity of the greenhouse gas that the*
2 *Administrator determines makes the same contribu-*
3 *tion to global warming as 1 metric ton of carbon di-*
4 *oxide.*

5 (6) *CORPORATION.—The term “Corporation”*
6 *means the Climate Change Credit Corporation estab-*
7 *lished by section 4201(a).*

8 (7) *COVERED FACILITY.—The term “covered fa-*
9 *cility” means—*

10 (A) *any facility that uses more than 5,000*
11 *tons of coal in a calendar year;*

12 (B) *any facility that is a natural gas proc-*
13 *essing plant or that produces natural gas in the*
14 *State of Alaska, or any entity that imports nat-*
15 *ural gas (including liquefied natural gas);*

16 (C) *any facility that in any year produces,*
17 *or any entity that in any year imports,*
18 *petroleum- or coal-based liquid or gaseous fuel,*
19 *the combustion of which will emit a group I*
20 *greenhouse gas, assuming no capture and seques-*
21 *tration of that gas;*

22 (D) *any facility that in any year produces*
23 *for sale or distribution, or any entity that in*
24 *any year imports, more than 10,000 carbon di-*
25 *oxide equivalents of chemicals that are group I*

1 greenhouse gas, assuming no capture and de-
2 struction or sequestration of that gas; or

3 (E) any facility that in any year emits as
4 a byproduct of the production of
5 hydrochlorofluorocarbons more than 10,000 car-
6 bon dioxide equivalents of hydrofluorocarbons.

7 (8) *DESTRUCTION*.—The term “destruction”
8 means the conversion of a greenhouse gas by thermal,
9 chemical, or other means—

10 (A) to another gas with a low- or zero-glob-
11 al warming potential; and

12 (B) for which credit given reflects the extent
13 of reduction in global warming potential actu-
14 ally achieved.

15 (9) *EMISSION ALLOWANCE*.—The term “emission
16 allowance” means an authorization to emit 1 carbon
17 dioxide equivalent of greenhouse gas.

18 (10) *EMISSION ALLOWANCE ACCOUNT*.—The term
19 “Emission Allowance Account” means the aggregate
20 of emission allowances that the Administrator estab-
21 lishes for a calendar year.

22 (11) *FACILITY*.—The term “facility” means—

23 (A) 1 or more buildings, structures, or in-
24 stallations located on 1 or more contiguous or

adjacent properties of an entity in the United States; and

(B) at the option of the Administrator, any activity or operation that—

(i) emits 10,000 carbon dioxide equivalents in any year; and

(ii) has a technical connection with the activities carried out at a facility, such as use of transportation fleets, pipelines, transmission lines, and distribution lines, but that is not conducted or located on the property of the facility.

(12) *FAIR MARKET VALUE*.—The term “fair market value” means the average market price, in a particular calendar year, of an emission allowance.

(13) *GEOLOGICAL SEQUESTRATION; GEOLOGICALLY SEQUESTERED*.—The terms “geological sequestration” and “geologically sequestered” mean the permanent isolation of greenhouse gases, without reversal, in geological formations, in accordance with part C of the Safe Drinking Water Act (42 U.S.C. 300h et seq.), as determined by the Administrator.

(14) *GROUP I GREENHOUSE GAS*.—The term “group I greenhouse gas” means any of—

(A) carbon dioxide;

- 1 (B) methane;
- 2 (C) nitrous oxide;
- 3 (D) sulfur hexafluoride; or
- 4 (E) a perfluorocarbon.

5 (15) *GROUP II GREENHOUSE GAS.*—The term
 6 “group II greenhouse gas” means a
 7 hydrofluorocarbon.

8 (16) *LEAKAGE.*—The term “leakage” means—
 9 (A) a significant unaccounted increase in
 10 greenhouse gas emissions by a facility or entity
 11 caused by an offset project that produces an ac-
 12 counted reduction in greenhouse gas emissions,
 13 as determined by the Administrator; or

14 (B) a significant unaccounted decrease in
 15 sequestration that is caused by an offset project
 16 that results in an accounted increase in seques-
 17 tration, as determined by the Administrator.

18 (17) *LOAD-SERVING ENTITY.*—The term “load-
 19 serving entity” means an entity, whether public or
 20 private—

21 (A) that has a legal, regulatory, or contrac-
 22 tual obligation to deliver electricity to retail con-
 23 sumers; and

24 (B) whose rates and costs are, except in the
 25 case of a registered electric cooperative, regulated

1 *by a State agency, regulatory commission, mu-*
 2 *nicipality, or public utility district.*

3 (18) *NATURAL GAS PROCESSING PLANT.*—*The*
 4 *term “natural gas processing plant” means a facility*
 5 *in the United States that is designed to separate nat-*
 6 *ural gas liquids from natural gas.*

7 (19) *NEW ENTRANT.*—*The term “new entrant”*
 8 *means any facility that commences operation on or*
 9 *after January 1, 2008.*

10 (20) *OFFSET ALLOWANCE.*—*The term “offset al-*
 11 *lowance” means a unit of reduction in the quantity*
 12 *of emissions or an increase in sequestration equal to*
 13 *1 carbon dioxide equivalent at an entity that is not*
 14 *a covered facility, where the reduction in emissions or*
 15 *increase in sequestration is eligible to be used as an*
 16 *additional means of compliance for the submission re-*
 17 *quirements established under section 1202.*

18 (21) *OFFSET PROJECT.*—*The term “offset*
 19 *project” means a domestic project, other than a*
 20 *project at a covered facility, that reduces greenhouse*
 21 *gas emissions or increases terrestrial sequestration of*
 22 *carbon dioxide.*

23 (22) *PROJECT DEVELOPER.*—*The term “project*
 24 *developer” means an individual or entity imple-*
 25 *menting an offset project.*

1 (23) *RETAIL RATE FOR DISTRIBUTION SERV-*
 2 *ICE.*—

3 (A) *IN GENERAL.*—*The term “retail rate for*
 4 *distribution service” means the rate that a load-*
 5 *serving entity charges for the use of the system*
 6 *of the load-serving entity.*

7 (B) *EXCLUSION.*—*The term “retail rate for*
 8 *distribution service” does not include any energy*
 9 *component of the rate.*

10 (24) *RETIRE AN EMISSION ALLOWANCE.*—*The*
 11 *term “retire an emission allowance” means to dis-*
 12 *qualify an emission allowance for any subsequent use,*
 13 *regardless of whether the use is a sale, exchange, or*
 14 *submission of the allowance in satisfying a compli-*
 15 *ance obligation.*

16 (25) *REVERSAL.*—*The term “reversal” means an*
 17 *intentional or unintentional loss of sequestered carbon*
 18 *dioxide to the atmosphere in significant quantities, as*
 19 *determined by the Administrator, in order to accom-*
 20 *plish the purposes of this Act in an effective and effi-*
 21 *cient manner.*

22 (26) *RURAL ELECTRIC COOPERATIVE.*—*The term*
 23 *“rural electric cooperative” means a cooperatively-*
 24 *owned association that was in existence as of October*
 25 *18, 2007, and is eligible to receive loans under section*

1 4 of the Rural Electrification Act of 1936 (7 U.S.C.
2 904).

3 (27) *SEQUESTERED AND SEQUESTRATION.*—The
4 terms “sequestered” and “sequestration” mean the
5 capture, permanent separation, isolation, or removal
6 of greenhouse gases from the atmosphere, as deter-
7 mined by the Administrator.

8 (28) *STATE REGULATORY AUTHORITY.*—The term
9 “State regulatory authority” means any State agency
10 that has ratemaking authority with respect to the re-
11 tail rate for distribution service.

12 ***TITLE I—CAPPING GREENHOUSE*** 13 ***GAS EMISSIONS***

14 ***Subtitle A—Tracking Emissions***

15 ***SEC. 1101. PURPOSE.***

16 *The purpose of this subtitle is to establish a Federal*
17 *greenhouse gas registry that—*

18 (1) *is complete, consistent, transparent, and ac-*
19 *curate;*

20 (2) *will collect reliable and accurate data that*
21 *can be used by public and private entities to design*
22 *efficient and effective energy security initiatives and*
23 *greenhouse gas emission reduction strategies; and*

1 (3) *will provide appropriate high-quality data to*
 2 *be used for implementing greenhouse gas reduction*
 3 *policies.*

4 **SEC. 1102. DEFINITIONS.**

5 *In this subtitle:*

6 (1) *AFFECTED FACILITY.*—

7 (A) *IN GENERAL.*—*The term “affected facil-*
 8 *ity” means—*

9 (i) *a covered facility;*

10 (ii) *another facility that emits a green-*
 11 *house gas, as determined by the Adminis-*
 12 *trator; and*

13 (iii) *at the option of the Adminis-*
 14 *trator, a vehicle fleet with emissions of more*
 15 *than 10,000 carbon dioxide equivalents in*
 16 *any year, assuming no double-counting of*
 17 *emissions.*

18 (B) *EXCLUSIONS.*—*The term “affected facil-*
 19 *ity” does not include any facility that—*

20 (i) *is not a covered facility;*

21 (ii) *is owned or operated by a small*
 22 *business (as described in part 121 of title*
 23 *13, Code of Federal Regulations (or a suc-*
 24 *cessor regulation)); and*

1 (iii) emits fewer than 10,000 carbon
2 dioxide equivalents in any year.

3 (2) *CARBON CONTENT.*—The term “carbon con-
4 tent” means the quantity of carbon (in carbon dioxide
5 equivalent) contained in a fuel.

6 (3) *CLIMATE REGISTRY.*—The term “Climate
7 Registry” means the greenhouse gas emissions registry
8 jointly established and managed by more than 40
9 States and Indian tribes to collect high-quality green-
10 house gas emission data from facilities, corporations,
11 and other organizations to support various greenhouse
12 gas emission reporting and reduction policies for the
13 member States and Indian tribes.

14 (4) *FEEDSTOCK FOSSIL FUEL.*—The term “feed-
15 stock fossil fuel” means fossil fuel used as raw mate-
16 rial in a manufacturing process.

17 (5) *GREENHOUSE GAS EMISSIONS.*—The term
18 “greenhouse gas emissions” means emissions of a
19 greenhouse gas, including—

20 (A) stationary combustion source emissions
21 emitted as a result of combustion of fuels in sta-
22 tionary equipment, such as boilers, furnaces,
23 burners, turbines, heaters, incinerators, engines,
24 flares, and other similar sources;

1 (B) process emissions consisting of emis-
 2 sions from chemical or physical processes other
 3 than combustion;

4 (C) fugitive emissions consisting of inten-
 5 tional and unintentional emissions from equip-
 6 ment leaks, such as joints, seals, packing, and
 7 gaskets, or from piles, pits, cooling towers, and
 8 other similar sources; and

9 (D) biogenic emissions resulting from bio-
 10 logical processes, such as anaerobic decomposi-
 11 tion, nitrification, and denitrification.

12 (6) INDIAN TRIBE.—The term “Indian tribe” has
 13 the meaning given the term in section 4 of the Indian
 14 Self-Determination and Education Assistance Act (25
 15 U.S.C. 450b).

16 (7) REGISTRY.—The term “Registry” means the
 17 Federal greenhouse gas registry established under sec-
 18 tion 1105(a).

19 (8) SOURCE.—The term “source” means any
 20 building, structure, installation, unit, point, oper-
 21 ation, vehicle, land area, or other item that emits or
 22 may emit a greenhouse gas.

23 **SEC. 1103. REPORTING REQUIREMENTS.**

24 (a) IN GENERAL.—Subject to this section, each affected
 25 facility shall submit to the Administrator, for inclusion in

1 *the Registry, periodic reports, including annual and quar-*
2 *terly data, that—*

3 *(1) include the quantity and type of fossil fuels,*
4 *including feedstock fossil fuels, that are extracted, pro-*
5 *duced, refined, imported, exported, or consumed at or*
6 *by the facility;*

7 *(2) include the quantity of hydrofluorocarbons,*
8 *perfluorocarbons, sulfur hexafluoride, nitrous oxide,*
9 *carbon dioxide that has been captured and seques-*
10 *tered, and other greenhouse gases generated, produced,*
11 *imported, exported, or consumed at or by the facility;*

12 *(3) include the quantity of electricity generated,*
13 *imported, exported, or consumed by or at the facility,*
14 *and information on the quantity of greenhouse gases*
15 *emitted when the imported, exported, or consumed*
16 *electricity was generated, as determined by the Ad-*
17 *ministrator;*

18 *(4) include the aggregate quantity of all green-*
19 *house gas emissions from sources at the facility, in-*
20 *cluding stationary combustion source emissions, proc-*
21 *ess emissions, and fugitive emissions;*

22 *(5) include greenhouse gas emissions expressed in*
23 *metric tons of each greenhouse gas emitted and in the*
24 *quantity of carbon dioxide equivalents of each green-*
25 *house gas emitted;*

1 (6) *include a list and description of sources of*
 2 *greenhouse gas emissions at the facility;*

3 (7) *quantify greenhouse gas emissions in accord-*
 4 *ance with the measurement standards established*
 5 *under section 1104;*

6 (8) *include other data necessary for accurate and*
 7 *complete accounting of greenhouse gas emissions, as*
 8 *determined by the Administrator;*

9 (9) *include an appropriate certification regard-*
 10 *ing the accuracy and completeness of reported data,*
 11 *as determined by the Administrator; and*

12 (10) *are submitted electronically to the Adminis-*
 13 *trator, in such form and to such extent as may be re-*
 14 *quired by the Administrator.*

15 (b) *DE MINIMIS EXEMPTIONS.—*

16 (1) *IN GENERAL.—The Administrator may deter-*
 17 *mine—*

18 (A) *whether certain sources at a facility*
 19 *should be considered to be eligible for a de mini-*
 20 *mis exemption from a requirement for reporting*
 21 *under subsection (a); and*

22 (B) *the level of greenhouse gases emitted*
 23 *from a source that would qualify for such an ex-*
 24 *emption.*

1 (2) *FACTORS.*—*In making a determination*
 2 *under paragraph (1), the Administrator shall con-*
 3 *sider the availability and suitability of simplified*
 4 *techniques and tools for quantifying emissions and*
 5 *the cost to measure those emissions relative to the*
 6 *purposes of this title, including the goal of collecting*
 7 *complete and consistent facility-wide data.*

8 (c) *VERIFICATION OF REPORT REQUIRED.*—*Before in-*
 9 *cluding the information from a report required under this*
 10 *section in the Registry, the Administrator shall verify the*
 11 *completeness and accuracy of the report using information*
 12 *provided under this section, obtained under section 9002(c),*
 13 *or obtained under other provisions of law.*

14 (d) *TIMING.*—

15 (1) *CALENDAR YEARS 2004 THROUGH 2007.*—*For*
 16 *a baseline period of calendar years 2004 through*
 17 *2007, each affected facility shall submit required an-*
 18 *nual data described in this section to the Adminis-*
 19 *trator not later than March 31, 2009.*

20 (2) *SUBSEQUENT CALENDAR YEARS.*—*For cal-*
 21 *endar year 2008 and each subsequent calendar year,*
 22 *each affected facility shall submit quarterly data de-*
 23 *scribed in this section to the Administrator not later*
 24 *than 60 days after the end of the applicable quarter.*

1 (e) *NO EFFECT ON OTHER REQUIREMENTS.*—*Nothing*
 2 *in this title affects any requirement in effect as of the date*
 3 *of enactment of this Act relating to the reporting of—*

4 (1) *fossil fuel production, refining, importation,*
 5 *exportation, or consumption data;*

6 (2) *greenhouse gas emission data; or*

7 (3) *other relevant data.*

8 **SEC. 1104. DATA QUALITY AND VERIFICATION.**

9 (a) *PROTOCOLS AND METHODS.*—

10 (1) *IN GENERAL.*—*The Administrator shall es-*
 11 *tablish by regulation, taking into account the work*
 12 *done by the Climate Registry, comprehensive protocols*
 13 *and methods to ensure the accuracy, completeness,*
 14 *consistency, and transparency of data on greenhouse*
 15 *gas emissions and fossil fuel production, refining, im-*
 16 *portation, exportation, and consumption submitted to*
 17 *the Registry that include—*

18 (A) *accounting and reporting standards for*
 19 *fossil fuel production, refining, importation, ex-*
 20 *portation, and consumption;*

21 (B) *a requirement that, where technically*
 22 *feasible, submitted data are monitored using*
 23 *monitoring systems for fuel flow or emissions,*
 24 *such as continuous emission monitoring systems*

1 *or equivalent systems of similar rigor, accuracy,*
2 *quality, and timeliness;*

3 *(C) a requirement that, if a facility has al-*
4 *ready been directed to monitor emissions of a*
5 *greenhouse gas using a continuous emission*
6 *monitoring system under existing law, that sys-*
7 *tem be used in complying with this Act with re-*
8 *spect to the greenhouse gas;*

9 *(D) for cases in which the Administrator*
10 *determines that monitoring emissions with the*
11 *precision, reliability, accessibility, and timeli-*
12 *ness similar to that provided by a continuous*
13 *emission monitoring system are not techno-*
14 *logically feasible, standardized methods for calcu-*
15 *lating greenhouse gas emissions in specific in-*
16 *dustries using other readily available and reli-*
17 *able information, such as fuel consumption, ma-*
18 *terials consumption, production, or other rel-*
19 *evant activity data, on the condition that those*
20 *methods do not underreport emissions, as com-*
21 *pared with the continuous emission monitoring*
22 *system;*

23 *(E) information on the accuracy of meas-*
24 *urement and calculation methods;*

1 (F) methods to avoid double-counting of
2 greenhouse gas emissions;

3 (G) protocols to prevent an affected facility
4 from avoiding the reporting requirements of this
5 title (such as by reorganizing into multiple enti-
6 ties or outsourcing activities that result in green-
7 house gas emissions); and

8 (H) protocols for verification of data sub-
9 mitted by affected facilities.

10 (2) *BEST PRACTICES.*—The protocols and meth-
11 ods developed under paragraph (1) shall incorporate
12 and conform to the best practices from the most recent
13 Federal, State, and international protocols for the
14 measurement, accounting, reporting, and verification
15 of greenhouse gas emissions to ensure the accuracy,
16 completeness, and consistency of the data.

17 (b) *VERIFICATION; INFORMATION BY REPORTING ENTI-*
18 *TIES.*—Each affected facility shall—

19 (1) provide information sufficient for the Admin-
20 istrator to verify, in accordance with the protocols
21 and methods developed under subsection (a), that the
22 fossil fuel data and greenhouse gas emission data of
23 the affected facility have been completely and accu-
24 rately reported; and

1 (2) *ensure the submission or retention, for the 5-*
 2 *year period beginning on the date of provision of the*
 3 *information, of—*

4 (A) *data sources;*

5 (B) *information on internal control activi-*
 6 *ties;*

7 (C) *information on assumptions used in re-*
 8 *porting emissions and fuels;*

9 (D) *uncertainty analyses; and*

10 (E) *other relevant data and information to*
 11 *facilitate the verification of reports submitted to*
 12 *the Registry.*

13 (c) *WAIVER OF REPORTING REQUIREMENTS.—The Ad-*
 14 *ministrator may waive reporting requirements for specific*
 15 *facilities if the Administrator determines that sufficient*
 16 *and equally or more reliable data are available under other*
 17 *provisions of law.*

18 (d) *MISSING DATA.—If information, satisfactory to the*
 19 *Administrator, is not provided for an affected facility, the*
 20 *Administrator shall—*

21 (1) *prescribe methods to estimate emissions for*
 22 *the facility for each period for which data are miss-*
 23 *ing, reflecting the highest emission levels that may*
 24 *reasonably have occurred during the period for which*
 25 *data are missing; and*

1 (2) *take appropriate enforcement action pursu-*
2 *ant to this section and section 9002(b).*

3 **SEC. 1105. FEDERAL GREENHOUSE GAS REGISTRY.**

4 (a) *ESTABLISHMENT.*—*The Administrator shall estab-*
5 *lish a Federal greenhouse gas registry.*

6 (b) *ADMINISTRATION.*—*In establishing the Registry,*
7 *the Administrator shall—*

8 (1) *design and operate the Registry;*

9 (2) *establish an advisory body that is broadly*
10 *representative of private enterprise, agriculture, envi-*
11 *ronmental groups, and State, tribal, and local govern-*
12 *ments to guide the development and management of*
13 *the Registry;*

14 (3) *provide coordination and technical assistance*
15 *for the development of proposed protocols and meth-*
16 *ods, taking into account the duties carried out by the*
17 *Climate Registry, to be published by the Adminis-*
18 *trator;*

19 (4)(A) *develop an electronic format for reporting*
20 *under guidelines established under section 1104(a)(1);*
21 *and*

22 (B) *make the electronic format available to re-*
23 *porting entities;*

24 (5) *verify and audit the data submitted by re-*
25 *porting entities;*

1 (6) *establish consistent policies for calculating*
2 *carbon content and greenhouse gas emissions for each*
3 *type of fossil fuel reported under section 1103;*

4 (7) *calculate carbon content and greenhouse gas*
5 *emissions associated with the combustion of fossil fuel*
6 *data reported by reporting entities; and*

7 (8) *immediately publish on the Internet all in-*
8 *formation contained in the Registry, except in any*
9 *case in which publishing the information would result*
10 *in a disclosure of—*

11 (A) *information vital to national security,*
12 *as determined by the President; or*

13 (B) *confidential business information that*
14 *cannot be derived from information that is other-*
15 *wise publicly available and that would cause sig-*
16 *nificant calculable competitive harm if published*
17 *(except that information relating to greenhouse*
18 *gas emissions shall not be considered to be con-*
19 *fidential business information).*

20 (c) *THIRD-PARTY VERIFICATION.—The Administrator*
21 *may use the services of third parties that have no conflicts*
22 *of interest to verify reports required under section 1103.*

23 (d) *REGULATIONS.—The Administrator shall—*

1 (1) *not later than 180 days after the date of en-*
 2 *actment of this Act, propose regulations to carry out*
 3 *this section; and*

4 (2) *not later than July 1, 2008, promulgate final*
 5 *regulations to carry out this section.*

6 **SEC. 1106. ENFORCEMENT.**

7 (a) *CIVIL ACTIONS.*—*The Administrator may bring a*
 8 *civil action in United States district court against the*
 9 *owner or operator of an affected facility that fails to comply*
 10 *with any requirement of this subtitle.*

11 (b) *PENALTY.*—*Any person that has violated or is vio-*
 12 *lating this subtitle shall be subject to a civil penalty of not*
 13 *more than \$25,000 per day of each violation.*

14 ***Subtitle B—Reducing Emissions***

15 **SEC. 1201. EMISSION ALLOWANCE ACCOUNT.**

16 (a) *IN GENERAL.*—*The Administrator shall establish*
 17 *a separate quantity of emission allowances for each of cal-*
 18 *endar years 2012 through 2050.*

19 (b) *IDENTIFICATION NUMBERS.*—*The Administrator*
 20 *shall assign to each emission allowance established under*
 21 *subsection (a) a unique identification number that includes*
 22 *the calendar year for which that emission allowance was*
 23 *established.*

24 (c) *LEGAL STATUS OF EMISSION ALLOWANCES.*—

1 (1) *IN GENERAL.*—*An emission allowance shall*
 2 *not be a property right.*

3 (2) *TERMINATION OR LIMITATION.*—*Nothing in*
 4 *this Act or any other provision of law limits the au-*
 5 *thority of the United States to terminate or limit an*
 6 *emission allowance.*

7 (3) *OTHER PROVISIONS UNAFFECTED.*—*Nothing*
 8 *in this Act relating to emission allowances shall affect*
 9 *the application of, or compliance with, any other pro-*
 10 *vision of law to or by a covered facility.*

11 (d) *ALLOWANCES FOR EACH CALENDAR YEAR.*—*The*
 12 *numbers of emission allowances established by the Adminis-*
 13 *trator for each of calendar years 2012 through 2050 shall*
 14 *be as follows:*

<i>Calendar Year</i>	<i>Number of Emission Allowances (in Millions)</i>
<i>2012</i>	<i>5,775</i>
<i>2013</i>	<i>5,669</i>
<i>2014</i>	<i>5,562</i>
<i>2015</i>	<i>5,456</i>
<i>2016</i>	<i>5,349</i>
<i>2017</i>	<i>5,243</i>
<i>2018</i>	<i>5,137</i>
<i>2019</i>	<i>5,030</i>
<i>2020</i>	<i>4,924</i>
<i>2021</i>	<i>4,817</i>
<i>2022</i>	<i>4,711</i>

<i>Calendar Year</i>	<i>Number of Emission Allowances (in Millions)</i>
2023	4,605
2024	4,498
2025	4,392
2026	4,286
2027	4,179
2028	4,073
2029	3,966
2030	3,860
2031	3,754
2032	3,647
2033	3,541
2034	3,435
2035	3,328
2036	3,222
2037	3,115
2038	3,009
2039	2,903
2040	2,796
2041	2,690
2042	2,584
2043	2,477
2044	2,371
2045	2,264
2046	2,158
2047	2,052
2048	1,945
2049	1,839

<i>Calendar Year</i>	<i>Number of Emission Allowances (in Millions)</i>
<i>2050</i>	<i>1,732</i>

1 **SEC. 1202. COMPLIANCE OBLIGATION.**

2 (a) *IN GENERAL.*—Not later than 90 days after the
3 end of a calendar year, the owner or operator of a covered
4 facility shall submit to the Administrator an emission al-
5 lowance, an offset allowance awarded pursuant to subtitle
6 D of title II, or an international emission allowance ob-
7 tained in compliance with regulations promulgated under
8 section 2502, for each carbon dioxide equivalent of—

9 (1) group I greenhouse gas that was emitted by
10 the use of coal by that covered facility during the pre-
11 ceding year;

12 (2) group I greenhouse gas that will, assuming
13 no capture and sequestration of that gas, be emitted
14 from the use of any petroleum- or coal-based liquid or
15 gaseous fuel that was produced or imported by that
16 covered facility during the preceding year;

17 (3) group I greenhouse gas that was produced for
18 sale or distribution or imported by that facility dur-
19 ing the preceding year;

20 (4) group II greenhouse gas that was emitted as
21 a byproduct of hydrochlorofluorocarbon production;
22 and

1 (5) *group I greenhouse gas that will, assuming*
 2 *no capture and destruction or sequestration of that*
 3 *gas, be emitted—*

4 (A) *from the use of natural gas that was, by*
 5 *that covered facility, processed, imported, or pro-*
 6 *duced and not reinjected into the field; or*

7 (B) *from the use of natural gas liquids that*
 8 *were processed or imported by that covered facil-*
 9 *ity during the preceding year.*

10 (b) *REQUIREMENTS.—*

11 (1) *ASSUMPTIONS.—For the purpose of calcu-*
 12 *lating the submission requirement under paragraphs*
 13 *(2) through (5) of subsection (a), the Administrator*
 14 *shall, subject to subsections (e) through (g), assume*
 15 *that no capture, sequestration, chemical retention, or*
 16 *other retention of a greenhouse gas has occurred or*
 17 *will occur.*

18 (2) *FACTORS FOR CONSIDERATION.—For the*
 19 *purpose of calculating the submission requirement*
 20 *under paragraph (1) of subsection (a), the Adminis-*
 21 *trator shall take into account any metric tons of car-*
 22 *bon dioxide that the owner or operator has geologi-*
 23 *cally sequestered during the preceding calendar year.*

1 (c) *RETIREMENT OF ALLOWANCES.*—Immediately
2 upon receipt of an emission allowance under subsection (a),
3 the Administrator shall retire the emission allowance.

4 (d) *DETERMINATION OF COMPLIANCE.*—Not later than
5 July 1 of each year, the Administrator shall determine
6 whether the owners and operators of all covered facilities
7 are in full compliance with subsection (a) for the preceding
8 year.

9 (e) *FEEDSTOCK CREDIT.*—If the Administrator deter-
10 mines that an entity has used a petroleum- or coal-based
11 product, natural gas, or a natural gas liquid as a feedstock
12 during any of calendar years 2012 through 2050, such that
13 no group I greenhouse gas associated with that feedstock
14 will be emitted, the Administrator shall establish and dis-
15 tribute to that entity a quantity of emission allowances
16 equal to the quantity of emission allowances, offset allow-
17 ances, or international emission allowances submitted
18 under subsection (a) for that petroleum- or coal-based prod-
19 uct, natural gas, or natural gas liquid.

20 (f) *SEQUESTRATION CREDIT.*—If the Administrator
21 determines that the owner or operator of a covered facility
22 that is subject to the submission requirement under any of
23 paragraphs (2) through (5) of subsection (a) has geologi-
24 cally sequestered carbon dioxide during any of calendar
25 years 2012 through 2050, the Administrator shall establish

1 *and distribute to that owner or operator a quantity of emis-*
 2 *sion allowances equal to the number of metric tons of carbon*
 3 *dioxide that the owner or operator geologically sequestered*
 4 *during that calendar year.*

5 (g) *DESTRUCTION CREDIT.*—*If the Administrator de-*
 6 *termines that an entity has destroyed greenhouse gas during*
 7 *any of calendar years 2012 through 2050, the Adminis-*
 8 *trator shall establish and distribute to that entity a quan-*
 9 *tity of emission allowances equal to the number of carbon*
 10 *dioxide equivalents of greenhouse gas that the owner or op-*
 11 *erator destroyed during that calendar year.*

12 **SEC. 1203. PENALTY FOR NONCOMPLIANCE.**

13 (a) *EXCESS EMISSIONS PENALTY.*—

14 (1) *IN GENERAL.*—*The owner or operator of any*
 15 *covered facility that fails for any year to submit to*
 16 *the Administrator by the deadline described in section*
 17 *1202(a) or 2303, 1 or more of the emission allowances*
 18 *due pursuant to either of those sections shall be liable*
 19 *for the payment to the Administrator of an excess*
 20 *emissions penalty.*

21 (2) *AMOUNT.*—*The amount of an excess emis-*
 22 *sions penalty required to be paid under paragraph*
 23 *(1) shall be, as determined by the Administrator, an*
 24 *amount equal to the product obtained by multi-*
 25 *plying—*

1 (A) *the number of excess emission allow-*
 2 *ances that the owner or operator failed to sub-*
 3 *mit; and*

4 (B) *the greater of—*

5 (i) *\$200; or*

6 (ii) *a dollar figure representing 3*
 7 *times the mean market value of an emission*
 8 *allowance during the calendar year for*
 9 *which the emission allowances were due.*

10 (3) *TIMING.—An excess emissions penalty re-*
 11 *quired under this subsection shall be immediately due*
 12 *and payable to the Administrator, without demand,*
 13 *in accordance with such regulations as shall be pro-*
 14 *mulgated by the Administrator by the date that is 1*
 15 *year after the date of enactment of this Act.*

16 (4) *DEPOSIT.—The Administrator shall deposit*
 17 *each excess emissions penalty paid under this sub-*
 18 *section in the Treasury of the United States.*

19 (5) *NO EFFECT ON LIABILITY.—An excess emis-*
 20 *sions penalty due and payable by the owner or oper-*
 21 *ator of a covered facility under this subsection shall*
 22 *not diminish the liability of the owner or operator for*
 23 *any fine, penalty, or assessment against the owner or*
 24 *operator for the same violation under any other pro-*
 25 *vision of this Act or any other law.*

1 (b) *EXCESS EMISSION ALLOWANCE.*—

2 (1) *IN GENERAL.*—*The owner or operator of a*
 3 *covered facility that fails for any year to submit to*
 4 *the Administrator by the deadline described in section*
 5 *1202(a) or 2303 1 or more of the emission allowances*
 6 *due pursuant to either of those sections shall be liable*
 7 *to offset the excess emissions by an equal quantity, in*
 8 *tons, during—*

9 (A) *the following calendar year; or*

10 (B) *such longer period as the Administrator*
 11 *may prescribe.*

12 (2) *PLAN.*—

13 (A) *IN GENERAL.*—*Not later than 60 days*
 14 *after the end of the calendar year during which*
 15 *a covered facility emits excess emissions, the*
 16 *owner or operator of the covered facility shall*
 17 *submit to the Administrator, and to the State in*
 18 *which the covered facility is located, a proposed*
 19 *plan to achieve the required offsets for the excess*
 20 *emissions.*

21 (B) *CONDITION OF OPERATION.*—*Upon ap-*
 22 *proval of a proposed plan described in subpara-*
 23 *graph (A) by the Administrator, the plan, as*
 24 *submitted, modified, or conditioned, shall be con-*
 25 *sidered to be a condition of the operating permit*

1 *for the covered facility, without further review or*
2 *revision of the permit.*

3 (C) *DEDUCTION OF ALLOWANCES.—For*
4 *each covered facility that, in any calendar year,*
5 *emits excess emissions, the Administrator shall*
6 *deduct, from emission allowances allocated to the*
7 *covered facility for the calendar year, or for suc-*
8 *ceeding years during which offsets are required,*
9 *emission allowances equal to the excess quantity,*
10 *in tons, of the excess emissions.*

11 (c) *PROHIBITION.—It shall be unlawful for the owner*
12 *or operator of any facility liable for a penalty and offset*
13 *under this section to fail—*

14 (1) *to pay the penalty in accordance with this*
15 *section;*

16 (2) *to provide, and thereafter comply with, a*
17 *proposed plan for compliance as required by sub-*
18 *section (b)(2); and*

19 (3) *to offset excess emissions as required by sub-*
20 *section (b)(1).*

21 (d) *NO EFFECT ON OTHER SECTION.—Nothing in this*
22 *subtitle limits or otherwise affects the application of section*
23 *9002(b).*

1 **SEC. 1204. RULEMAKING.**

2 *Not later than 2 years after the date of enactment of*
 3 *this Act, the Administrator shall, by rule, expand the defini-*
 4 *tion of the term “covered facility” to ensure the inclusion*
 5 *of all greenhouse gas emissions from natural gas emitted,*
 6 *flared during production or processing, or sold for use in*
 7 *the United States.*

8 **TITLE II—MANAGING AND CON-**
 9 **TAINING COSTS EFFICIENTLY**

10 ***Subtitle A—Trading***

11 **SEC. 2101. SALE, EXCHANGE, AND RETIREMENT OF EMIS-**
 12 **SION ALLOWANCES.**

13 *Except as otherwise provided in this Act, the lawful*
 14 *holder of an emission allowance may, without restriction,*
 15 *sell, exchange, transfer, submit for compliance in accord-*
 16 *ance with section 1202, or retire the emission allowance.*

17 **SEC. 2102. NO RESTRICTION ON TRANSACTIONS.**

18 *The privilege of purchasing, holding, selling, exchang-*
 19 *ing, and retiring emission allowances shall not be restricted*
 20 *to the owners and operators of covered facilities.*

21 **SEC. 2103. ALLOWANCE TRANSFER SYSTEM.**

22 *(a) IN GENERAL.—Not later than 18 months after the*
 23 *date of enactment of this Act, the Administrator shall pro-*
 24 *mulgate regulations to carry out the provisions of this Act*
 25 *relating to emission allowances, including regulations pro-*
 26 *viding that the transfer of emission allowances shall not be*

1 *effective until such date as a written certification of the*
 2 *transfer, signed by a responsible official of each party to*
 3 *the transfer, is received and recorded by the Administrator*
 4 *in accordance with those regulations.*

5 (b) *TRANSFERS.*—

6 (1) *IN GENERAL.*—*The regulations promulgated*
 7 *under subsection (a) shall permit the transfer of al-*
 8 *lowances prior to the issuance of the allowances.*

9 (2) *DEDUCTION AND ADDITION OF TRANSFERS.*—
 10 *A recorded pre-allocation transfer of allowances shall*
 11 *be—*

12 (A) *deducted by the Administrator from the*
 13 *number of allowances that would otherwise be*
 14 *distributed to the transferor; and*

15 (B) *added to those allowances distributed to*
 16 *the transferee.*

17 **SEC. 2104. ALLOWANCE TRACKING SYSTEM.**

18 *The regulations promulgated under section 2103(a)*
 19 *shall include a system for issuing, recording, and tracking*
 20 *emission allowances that shall specify all necessary proce-*
 21 *dures and requirements for an orderly and competitive*
 22 *functioning of the emission allowance system.*

Subtitle B—Banking

SEC. 2201. INDICATION OF CALENDAR YEAR.

An emission allowance submitted to the Administrator by the owner or operator of a covered facility in accordance with section 1202(a) shall not be required to indicate in the identification number of the emission allowance the calendar year for which the emission allowance is submitted.

SEC. 2202. EFFECT OF TIME.

The passage of time shall not, by itself, cause an emission allowance to be retired or otherwise diminish the compliance value of the emission allowance.

Subtitle C—Borrowing

SEC. 2301. REGULATIONS.

(a) IN GENERAL.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate regulations under which, subject to subsection (b), the owner or operator of a covered facility may—

(1) borrow emission allowances from the Administrator; and

(2) for a calendar year, submit borrowed emission allowances to the Administrator in satisfaction of up to 15 percent of the compliance obligation under section 1202(a).

(b) LIMITATION.—An emission allowance borrowed under subsection (a) shall be an emission allowance estab-

1 lished by the Administrator for a specific future calendar
 2 year under subsection 1201(a).

3 **SEC. 2302. TERM.**

4 The owner or operator of a covered facility shall not
 5 submit, and the Administrator shall not accept, a borrowed
 6 emission allowance in partial satisfaction of the compliance
 7 obligation under section 1202(a) for any calendar year that
 8 is more than 5 years earlier than the calendar year in-
 9 cluded in the identification number of the borrowed emis-
 10 sion allowance.

11 **SEC. 2303. REPAYMENT WITH INTEREST.**

12 For each borrowed emission allowance submitted in
 13 partial satisfaction of the compliance obligation under sub-
 14 section 1202(a) for a particular calendar year (referred to
 15 in this section as the “use year”), the number of emission
 16 allowances that the owner or operator is required to submit
 17 under section 1202(a) for the year from which the borrowed
 18 emission allowance was taken (referred to in this section
 19 as the “source year”) shall be increased by an amount equal
 20 to the product obtained by multiplying—

21 (1) 1.1; and

22 (2) the number of years beginning after the use
 23 year and before the source year.

Subtitle D—Offsets

SEC. 2401. OUTREACH INITIATIVE ON REVENUE ENHANCEMENT FOR AGRICULTURAL PRODUCERS.

(a) *ESTABLISHMENT.*—The Secretary of Agriculture, acting through the Chief of the Natural Resources Conservation Service, the Chief of the Forest Service, the Administrator of the Cooperative State Research, Education, and Extension Service, and land-grant colleges and universities, in consultation with the Administrator and the heads of other appropriate departments and agencies, shall establish an outreach initiative to provide information to agricultural producers, agricultural organizations, foresters, and other landowners about opportunities under this subtitle to earn new revenue.

(b) *COMPONENTS.*—The initiative under this section—

(1) shall be designed to ensure that, to the maximum extent practicable, agricultural organizations and individual agricultural producers, foresters, and other landowners receive detailed practical information about—

(A) opportunities to earn new revenue under this subtitle;

(B) measurement protocols, monitoring, verifying, inventorying, registering, insuring, and marketing offsets under this title;

1 (C) *emerging domestic and international*
 2 *markets for energy crops, allowances, and offsets;*
 3 *and*

4 (D) *local, regional, and national databases*
 5 *and aggregation networks to facilitate achieve-*
 6 *ment, measurement, registration, and sales of off-*
 7 *sets;*

8 (2) *shall provide—*

9 (A) *outreach materials, including the hand-*
 10 *book published under subsection (c), to interested*
 11 *parties;*

12 (B) *workshops; and*

13 (C) *technical assistance; and*

14 (3) *may include the creation and development of*
 15 *regional marketing centers or coordination with exist-*
 16 *ing centers (including centers within the Natural Re-*
 17 *sources Conservation Service or the Cooperative State*
 18 *Research, Education, and Extension Service or at*
 19 *land-grant colleges and universities).*

20 (c) *HANDBOOK.—*

21 (1) *IN GENERAL.—Not later than 2 years after*
 22 *the date of enactment of this Act, the Secretary of Ag-*
 23 *riculture, in consultation with the Administrator and*
 24 *after an opportunity for public comment, shall pub-*
 25 *lish a handbook for use by agricultural producers, ag-*

1 *gricultural cooperatives, foresters, other landowners,*
 2 *offset buyers, and other stakeholders that provides*
 3 *easy-to-use guidance on achieving, reporting, reg-*
 4 *istering, and marketing offsets.*

5 (2) *DISTRIBUTION.*—*The Secretary of Agri-*
 6 *culture shall ensure, to the maximum extent prac-*
 7 *ticable, that the handbook—*

8 (A) *is made available through the Internet*
 9 *and in other electronic media;*

10 (B) *includes, with respect to the electronic*
 11 *form of the handbook described in subparagraph*
 12 (A), *electronic forms and calculation tools to fa-*
 13 *cilitate the petition process described in section*
 14 *2404; and*

15 (C) *is distributed widely through land-grant*
 16 *colleges and universities and other appropriate*
 17 *institutions.*

18 **SEC. 2402. ESTABLISHMENT OF DOMESTIC OFFSET PRO-**
 19 **GRAM.**

20 (a) *ALTERNATIVE MEANS OF COMPLIANCE.*—*Begin-*
 21 *ning with calendar year 2012, the owner or operator of a*
 22 *covered entity may satisfy up to 15 percent of the total al-*
 23 *lowance submission requirement of the covered entity under*
 24 *section 1202(a) by submitting offset allowances generated*
 25 *in accordance with this subtitle.*

1 **(b) REGULATIONS REQUIRED.—**

2 **(1) IN GENERAL.—***Not later than 18 months*
3 *after the date of enactment of this Act, the Adminis-*
4 *trator, in conjunction with the Secretary of Agri-*
5 *culture, shall promulgate regulations authorizing the*
6 *issuance and certification of offset allowances.*

7 **(2) CERTAIN SOURCES.—**

8 **(A) IN GENERAL.—***For offsets from sources*
9 *of greenhouse gases not linked to agricultural,*
10 *forestry, or other land use-related projects, the*
11 *regulations promulgated under this subsection*
12 *shall require that the owner of the project estab-*
13 *lish the project baseline and register emissions*
14 *under the Federal Greenhouse Gas Registry es-*
15 *tablished under section 1105.*

16 **(B) REQUIREMENT.—***The regulations de-*
17 *scribed in subparagraph (A) shall—*

18 *(i) authorize the issuance and certifi-*
19 *cation of offset allowances for greenhouse*
20 *gas emission reductions below the project*
21 *baseline; and*

22 *(ii) ensure that those offsets represent*
23 *real, verifiable, additional, permanent, and*
24 *enforceable reductions in greenhouse gas*
25 *emissions or increases in sequestration.*

1 (3) *AGRICULTURAL, FORESTRY, AND OTHER*
2 *LAND USE-RELATED PROJECTS.*—*For offsets from cer-*
3 *tain agricultural, forestry, and other land use-related*
4 *projects undertaken within the United States, the reg-*
5 *ulations promulgated under this subsection shall in-*
6 *clude provisions that—*

7 (A) *ensure that those offsets represent real,*
8 *verifiable, additional, permanent, and enforce-*
9 *able reductions in greenhouse gas emissions or*
10 *increases in biological sequestration;*

11 (B) *specify the types of offset projects eligi-*
12 *ble to generate offset allowances, in accordance*
13 *with section 2403;*

14 (C) *establish procedures for project initi-*
15 *ation and approval, in accordance with section*
16 *2404;*

17 (D) *establish procedures to monitor, quan-*
18 *tify, and discount reductions in greenhouse gas*
19 *emissions or increases in biological sequestration,*
20 *in accordance with subsections (d) through (g) of*
21 *section 2404;*

22 (E) *establish procedures for third-party*
23 *verification, registration, and issuance of offset*
24 *allowances, in accordance with section 2405;*

1 (F) ensure permanence of offsets by miti-
 2 gating and compensating for reversals, in ac-
 3 cordance with section 2406; and

4 (G) assign a unique serial number to each
 5 offset allowance issued under this section.

6 (c) *OFFSET ALLOWANCES AWARDED.*—The Adminis-
 7 trator shall issue offset allowances for qualifying emission
 8 reductions and biological sequestrations from offset projects
 9 that satisfy the applicable requirements of this subtitle.

10 (d) *OWNERSHIP.*—Initial ownership of an offset allow-
 11 ance shall lie with a project developer, unless otherwise spec-
 12 ified in a legally-binding contract or agreement.

13 (e) *TRANSFERABILITY.*—An offset allowance generated
 14 pursuant to this subtitle may be sold, traded, or transferred,
 15 on the conditions that—

16 (1) the offset allowance has not expired or been
 17 retired or canceled; and

18 (2) liability and responsibility for mitigating
 19 and compensating for reversals of registered offset al-
 20 lowances is specified in accordance with section
 21 2406(b).

22 **SEC. 2403. ELIGIBLE OFFSET PROJECT TYPES.**

23 (a) *IN GENERAL.*—Offset allowances from agricul-
 24 tural, forestry, and other land use-related projects shall be
 25 limited to those allowances achieving an offset of 1 or more

1 *greenhouse gases by a method other than a reduction of com-*
 2 *bustion of greenhouse gas-emitting fuel.*

3 *(b) CATEGORIES OF ELIGIBLE OFFSET PROJECTS.—*

4 *Subject to the requirements promulgated pursuant to sec-*
 5 *tion 2402(b), the types of operations eligible to generate off-*
 6 *set allowances under this subtitle include—*

7 *(1) agricultural and rangeland sequestration and*
 8 *management practices, including—*

9 *(A) altered tillage practices;*

10 *(B) winter cover cropping, continuous crop-*
 11 *ping, and other means to increase biomass re-*
 12 *turned to soil in lieu of planting followed by*
 13 *fallowing;*

14 *(C) conversion of cropland to rangeland or*
 15 *grassland, on the condition that the land has*
 16 *been in nonforest use for at least 10 years before*
 17 *the date of initiation of the project;*

18 *(D) reduction of nitrogen fertilizer use or*
 19 *increase in nitrogen use efficiency;*

20 *(E) reduction in the frequency and duration*
 21 *of flooding of rice paddies; and*

22 *(F) reduction in carbon emissions from or-*
 23 *ganic soils;*

24 *(2) changes in carbon stocks attributed to land*
 25 *use change and forestry activities limited to—*

1 (A) afforestation or reforestation of acreage
2 not forested as of October 18, 2007; and

3 (B) forest management resulting in an in-
4 crease in forest stand volume;

5 (3) manure management and disposal, includ-
6 ing—

7 (A) waste aeration; and

8 (B) methane capture and combustion;

9 (4) subject to the requirements of this subtitle,
10 any other terrestrial offset practices identified by the
11 Administrator, including—

12 (A) the capture or reduction of fugitive
13 greenhouse gas emissions for which no covered fa-
14 cility is required under section 1202(a) to sub-
15 mit any emission allowances, offset allowances,
16 or international emission allowances;

17 (B) methane capture and combustion at
18 nonagricultural facilities; and

19 (C) other actions that result in the avoid-
20 ance or reduction of greenhouse gas emissions in
21 accordance with section 2402; and

22 (5) combinations of any of the offset practices de-
23 scribed in paragraphs (1) through (4).

24 **SEC. 2404. PROJECT INITIATION AND APPROVAL.**

25 (a) *PROJECT APPROVAL.*—A project developer—

1 (1) *may submit a petition for offset project ap-*
 2 *proval at any time following the effective date of regu-*
 3 *lations promulgated under section 2402(b); but*

4 (2) *may not register or issue offset allowances*
 5 *until such approval is received and until after the*
 6 *emission reductions or sequestrations supporting the*
 7 *offset allowances have actually occurred.*

8 (b) *PETITION PROCESS.*—*Prior to offset registration*
 9 *and issuance of offset allowances, a project developer shall*
 10 *submit a petition to the Administrator, consisting of—*

11 (1) *a copy of the monitoring and quantification*
 12 *plan prepared for the offset project, as described*
 13 *under subsection (d);*

14 (2) *a greenhouse gas initiation certification, as*
 15 *described under subsection (e); and*

16 (3) *subject to the requirements of this subtitle,*
 17 *any other information identified by the Adminis-*
 18 *trator in the regulations promulgated under section*
 19 *2402 as necessary to meet the objectives of this sub-*
 20 *title.*

21 (c) *APPROVAL AND NOTIFICATION.*—

22 (1) *IN GENERAL.*—*Not later than 180 days after*
 23 *the date on which the Administrator receives a com-*
 24 *plete petition under subsection (b), the Administrator*
 25 *shall—*

1 (A) determine whether the monitoring and
2 quantification plan satisfies the applicable re-
3 quirements of this subtitle;

4 (B) determine whether the greenhouse gas
5 initiation certification indicates a significant
6 deviation in accordance with subsection (e)(3);

7 (C) notify the project developer of the deter-
8 minations under subparagraphs (A) and (B);
9 and

10 (D) issue offset allowances for approved
11 projects.

12 (2) *APPEAL.*—The Administrator shall establish
13 mechanisms for appeal and review of determinations
14 made under this subsection.

15 (d) *MONITORING AND QUANTIFICATION.*—

16 (1) *IN GENERAL.*—A project developer shall make
17 use of the standardized tools and methods described in
18 this section to monitor, quantify, and discount reduc-
19 tions in greenhouse gas emissions or increases in se-
20 questration.

21 (2) *MONITORING AND QUANTIFICATION PLAN.*—A
22 monitoring and quantification plan shall be used to
23 monitor, quantify, and discount reductions in green-
24 house gas emissions or increases in sequestration as
25 described by this subsection.

1 (3) *PLAN COMPLETION AND RETENTION.*—A
2 *monitoring and quantification plan shall be—*

3 (A) *completed for all offset projects prior to*
4 *offset project initiation; and*

5 (B) *retained by the project developer for the*
6 *duration of the offset project.*

7 (4) *PLAN REQUIREMENTS.*—*Subject to section*
8 *2402, the Administrator, in conjunction with the Sec-*
9 *retary of Agriculture, shall specify the required com-*
10 *ponents of a monitoring and quantification plan, in-*
11 *cluding—*

12 (A) *a description of the offset project, in-*
13 *cluding project type;*

14 (B) *a determination of accounting periods;*

15 (C) *an assignment of reporting responsi-*
16 *bility;*

17 (D) *the contents and timing of public re-*
18 *ports, including summaries of the original data,*
19 *as well as the results of any analyses;*

20 (E) *a delineation of project boundaries,*
21 *based on acceptable methods and formats;*

22 (F) *a description of which of the monitoring*
23 *and quantification tools developed under sub-*
24 *section (f) are to be used to monitor and quan-*

1 *tify changes in greenhouse gas fluxes or carbon*
 2 *stocks associated with a project;*

3 *(G) a description of which of the standard-*
 4 *ized methods developed under subsection (g) to be*
 5 *used to determine additionality, estimate the*
 6 *baseline carbon, and discount for leakage;*

7 *(H) based on the standardized methods cho-*
 8 *sen in subparagraphs (F) and (G), a determina-*
 9 *tion of uncertainty in accordance with sub-*
 10 *section (h);*

11 *(I) what site-specific data, if any, will be*
 12 *used in monitoring, quantification, and the de-*
 13 *termination of discounts;*

14 *(J) a description of procedures for use in*
 15 *managing and storing data, including quality-*
 16 *control standards and methods, such as redun-*
 17 *dancy in case records are lost;*

18 *(K) subject to the requirements of this sub-*
 19 *title, any other information identified by the Ad-*
 20 *ministrator or the Secretary of Agriculture as*
 21 *being necessary to meet the objectives of this sub-*
 22 *title; and*

23 *(L) a description of the risk of reversals for*
 24 *the project, including any way in which the pro-*

1 posed project may alter the risk of reversal for
2 the project or other projects in the area.

3 (e) *GREENHOUSE GAS INITIATION CERTIFICATION.*—

4 (1) *IN GENERAL.*—In reviewing a petition sub-
5 mitted under subsection (b), the Administrator shall
6 seek to exclude each activity that undermines the in-
7 tegrity of the offset program established under this
8 subtitle, such as the conversion or clearing of land, or
9 marked change in management regime, in anticipa-
10 tion of offset project initiation.

11 (2) *GREENHOUSE GAS INITIATION CERTIFI-*
12 *CATION REQUIREMENTS.*—A greenhouse gas initiation
13 certification developed under this subsection shall in-
14 clude—

15 (A) the estimated greenhouse gas flux or
16 carbon stock for the offset project for each of the
17 4 complete calendar years preceding the effective
18 date of the regulations promulgated under sec-
19 tion 2402(b); and

20 (B) the estimated greenhouse gas flux or
21 carbon stock for the offset project, averaged across
22 each of the 4 calendar years preceding the effec-
23 tive date of the regulations promulgated under
24 section 2402(b).

1 (3) *DETERMINATION OF SIGNIFICANT DEVI-*
 2 *ATION.—Based on standards developed by the Admin-*
 3 *istrator, in conjunction with the Secretary of Agri-*
 4 *culture—*

5 (A) *each greenhouse gas initiation certifi-*
 6 *cation submitted pursuant to this section shall be*
 7 *reviewed; and*

8 (B) *a determination shall be made as to*
 9 *whether, as a result of activities or behavior in-*
 10 *consistent with the purposes of this title, a sig-*
 11 *nificant deviation exists between the average an-*
 12 *nual greenhouse gas flux or carbon stock and the*
 13 *greenhouse gas flux or carbon stock for a given*
 14 *year.*

15 (4) *ADJUSTMENT FOR PROJECTS WITH SIGNIFI-*
 16 *CANT DEVIATION.—In the case of a significant devi-*
 17 *ation, the Administrator shall adjust the number of*
 18 *allowances awarded in order to account for the devi-*
 19 *ation.*

20 (f) *DEVELOPMENT OF MONITORING AND QUANTIFICA-*
 21 *TION TOOLS FOR OFFSET PROJECTS.—*

22 (1) *IN GENERAL.—Subject to section 2402(b), the*
 23 *Administrator, in conjunction with the Secretary of*
 24 *Agriculture, shall develop standardized tools for use*
 25 *in the monitoring and quantification of changes in*

1 *greenhouse gas fluxes or carbon stocks for each offset*
 2 *project type listed under section 2403(b).*

3 (2) *TOOL DEVELOPMENT.—The tools used to*
 4 *monitor and quantify changes in greenhouse gas*
 5 *fluxes or carbon stocks shall, for each project type, in-*
 6 *clude applicable—*

7 (A) *statistically-sound field and remote*
 8 *sensing sampling methods, procedures, tech-*
 9 *niques, protocols, or programs;*

10 (B) *models, factors, equations, or look-up*
 11 *tables; and*

12 (C) *any other process or tool considered to*
 13 *be acceptable by the Administrator, in conjunc-*
 14 *tion with the Secretary of Agriculture.*

15 (g) *DEVELOPMENT OF ACCOUNTING AND DISCOUNTING*
 16 *METHODS.—*

17 (1) *IN GENERAL.—The Administrator, in con-*
 18 *sultation with the Secretary of Agriculture, shall—*

19 (A) *develop standardized methods for use in*
 20 *accounting for additionality and uncertainty, es-*
 21 *timating the baseline, and discounting for leak-*
 22 *age for each offset project type listed under sec-*
 23 *tion 2403(b); and*

1 (B) require that leakage be subtracted from
 2 reductions in greenhouse gas emissions or in-
 3 creases in sequestration attributable to a project.

4 (2) *ADDITIONALITY DETERMINATION AND BASE-*
 5 *LINE ESTIMATION.*—*The standardized methods used to*
 6 *determine additionality and establish baselines shall,*
 7 *for each project type, at a minimum—*

8 (A) in the case of a sequestration project,
 9 determine the greenhouse gas flux and carbon
 10 stock on comparable land identified on the basis
 11 of—

12 (i) similarity in current management
 13 practices;

14 (ii) similarity of regional, State, or
 15 local policies or programs; and

16 (iii) similarity in geographical and
 17 biophysical characteristics;

18 (B) in the case of an emission reduction
 19 project, use as a basis emissions from comparable
 20 land or facilities; and

21 (C) in the case of a sequestration project or
 22 emission reduction project, specify a selected
 23 time period.

1 (3) *LEAKAGE.*—*The standardized methods used*
 2 *to determine and discount for leakage shall, at a min-*
 3 *imum, take into consideration—*

4 (A) *the scope of the offset system in terms*
 5 *of activities and geography covered;*

6 (B) *the markets relevant to the offset*
 7 *project;*

8 (C) *emission intensity per unit of produc-*
 9 *tion, both inside and outside of the offset project;*
 10 *and*

11 (D) *a time period sufficient in length to*
 12 *yield a stable leakage rate.*

13 (h) *UNCERTAINTY FOR AGRICULTURAL AND FORESTRY*
 14 *PROJECTS.*—

15 (1) *IN GENERAL.*—*The Administrator, in con-*
 16 *junction with the Secretary of Agriculture, shall de-*
 17 *velop standardized methods for use in determining*
 18 *and discounting for uncertainty for each offset project*
 19 *type listed under section 2403(b).*

20 (2) *BASIS.*—*The standardized methods used to*
 21 *determine and discount for uncertainty shall be based*
 22 *on—*

23 (A) *the robustness and rigor of the methods*
 24 *used by a project developer to monitor and quan-*

1 *tify changes in greenhouse gas fluxes or carbon*
 2 *stocks;*

3 *(B) the robustness and rigor of methods*
 4 *used by a project developer to determine*
 5 *additionality and leakage; and*

6 *(C) an exaggerated proportional discount*
 7 *that increases relative to uncertainty, as deter-*
 8 *mined by the Administrator, in conjunction with*
 9 *the Secretary of Agriculture, to encourage better*
 10 *measurement and accounting.*

11 *(i) ACQUISITION OF NEW DATA AND REVIEW OF*
 12 *METHODS FOR AGRICULTURAL AND FORESTRY*
 13 *PROJECTS.—The Administrator, in conjunction with the*
 14 *Secretary of Agriculture, shall—*

15 *(1) establish a comprehensive field sampling pro-*
 16 *gram to improve the scientific bases on which the*
 17 *standardized tools and methods developed under this*
 18 *section are based; and*

19 *(2) review and revise the standardized tools and*
 20 *methods developed under this section, based on—*

21 *(A) validation of existing methods, proto-*
 22 *cols, procedures, techniques, factors, equations, or*
 23 *models;*

1 (B) development of new methods, protocols,
2 procedures, techniques, factors, equations, or
3 models;

4 (C) increased availability of field data or
5 other datasets; and

6 (D) any other information identified by the
7 Administrator, in conjunction with the Secretary
8 of Agriculture, that is necessary to meet the ob-
9 jectives of this subtitle.

10 (j) *EXCLUSION.*—No activity for which any emission
11 allowances are received under subtitle G of title III shall
12 generate offset allowances under this subtitle.

13 **SEC. 2405. OFFSET VERIFICATION AND ISSUANCE OF AL-**
14 **LOWANCES.**

15 (a) *IN GENERAL.*—Offset allowances may be claimed
16 for net emission reductions or increases in sequestration an-
17 nually, after accounting for any necessary discounts in ac-
18 cordance with section 2404, by submitting a verification re-
19 port for an offset project to the Administrator.

20 (b) *OFFSET VERIFICATION.*—

21 (1) *SCOPE OF VERIFICATION.*—A verification re-
22 port for an offset project shall—

23 (A) be completed by a verifier accredited in
24 accordance with paragraph (3); and

1 (B) shall be developed taking into consider-
 2 ation—

3 (i) the information and methodology
 4 contained within a monitoring and quan-
 5 tification plan;

6 (ii) data and subsequent analysis of
 7 the offset project, including—

8 (I) quantification of net emission
 9 reductions or increases in sequestra-
 10 tion;

11 (II) determination of
 12 additionality;

13 (III) calculation of leakage;

14 (IV) assessment of permanence;

15 (V) discounting for uncertainty;

16 and

17 (VI) the adjustment of net emis-
 18 sion reductions or increases in seques-
 19 tration by the discounts determined
 20 under clauses (II) through (V); and

21 (iii) subject to the requirements of this
 22 subtitle, any other information identified by
 23 the Administrator as being necessary to
 24 achieve the purposes of this subtitle.

1 (2) *VERIFICATION REPORT REQUIREMENTS.*—*The*
 2 *Administrator shall specify the required components*
 3 *of a verification report, including—*

4 *(A) the quantity of offsets generated;*

5 *(B) the amount of discounts applied;*

6 *(C) an assessment of methods (and the ap-*
 7 *propriateness of those methods);*

8 *(D) an assessment of quantitative errors or*
 9 *omissions (and the effect of the errors or omis-*
 10 *sions on offsets);*

11 *(E) any potential conflicts of interest be-*
 12 *tween a verifier and project developer; and*

13 *(F) any other provision that the Adminis-*
 14 *trator considers to be necessary to achieve the*
 15 *purposes of this subtitle.*

16 (3) *VERIFIER ACCREDITATION.*—

17 *(A) IN GENERAL.*—*Not later than 18*
 18 *months after the date of enactment of this Act,*
 19 *the Administrator shall promulgate regulations*
 20 *establishing a process and requirements for ac-*
 21 *creditation by a third-party verifier that has no*
 22 *conflicts of interest.*

23 *(B) PUBLIC ACCESSIBILITY.*—*Each verifier*
 24 *meeting the requirements for accreditation in ac-*
 25 *cordance with this paragraph shall be listed in*

1 a publicly-accessible database, which shall be
2 maintained and updated by the Administrator.

3 (c) *REGISTRATION AND AWARDING OF OFFSETS.*—

4 (1) *IN GENERAL.*—Not later than 90 days after
5 the date on which the Administrator receives a
6 verification report required under subsection (b), the
7 Administrator shall—

8 (A) determine whether the offsets satisfy the
9 applicable requirements of this subtitle; and

10 (B) notify the project developer of that de-
11 termination.

12 (2) *AFFIRMATIVE DETERMINATION.*—In the case
13 of an affirmative determination under paragraph (1),
14 the Administrator shall—

15 (A) register the offset allowances in accord-
16 ance with this subtitle; and

17 (B) issue the offset allowances.

18 (3) *APPEAL AND REVIEW.*—The Administrator
19 shall establish mechanisms for the appeal and review
20 of determinations made under this subsection.

21 **SEC. 2406. TRACKING OF REVERSALS FOR SEQUESTRATION**
22 **PROJECTS.**

23 (a) *REVERSAL CERTIFICATION.*—

24 (1) *IN GENERAL.*—Subject to section 2402, the
25 Administrator shall promulgate regulations requiring

1 *the submission of a reversal certification for each off-*
 2 *set project on an annual basis following the registra-*
 3 *tion of offset allowances.*

4 (2) *REQUIREMENTS.—A reversal certification*
 5 *submitted in accordance with this subsection shall*
 6 *state—*

7 (A) *whether any unmitigated reversal relat-*
 8 *ing to the offset project has occurred in the year*
 9 *preceding the year in which the certification is*
 10 *submitted; and*

11 (B) *the quantity of each unmitigated rever-*
 12 *sal.*

13 (b) *EFFECT ON OFFSET ALLOWANCES.—*

14 (1) *INVALIDITY.—The Administrator shall de-*
 15 *clare invalid all offset allowances issued for any offset*
 16 *project that has undergone a complete reversal.*

17 (2) *PARTIAL REVERSAL.—In the case of an offset*
 18 *project that has undergone a partial reversal, the Ad-*
 19 *ministrator shall render invalid offset allowances*
 20 *issued for the offset project in direct proportion to the*
 21 *degree of reversal.*

22 (c) *ACCOUNTABILITY FOR REVERSALS.—Liability and*
 23 *responsibility for compensation of a reversal of a registered*
 24 *offset allowance under subsection (a) shall lie with the*
 25 *owner of the offset allowance, as described in section 2402.*

1 (d) *COMPENSATION FOR REVERSALS.*—*The unmiti-*
 2 *gated reversal of 1 or more registered offset allowances that*
 3 *were submitted for the purpose of compliance with section*
 4 *1202(a) shall require the submission of—*

5 (1) *an equal number of offset allowances; or*
 6 (2) *a combination of offset allowances and emis-*
 7 *sion allowances equal to the unmitigated reversal.*

8 (e) *PROJECT TERMINATION.*—*A project developer may*
 9 *cease participation in the domestic offset program estab-*
 10 *lished under this subtitle at any time, on the condition that*
 11 *any registered allowances awarded for increases in seques-*
 12 *tration have been compensated for by the project developer*
 13 *through the submission of an equal number of any combina-*
 14 *tion of offset allowances and emission allowances.*

15 **SEC. 2407. EXAMINATIONS.**

16 (a) *REGULATIONS.*—*Not later than 2 years after the*
 17 *date of enactment of this Act, the Administrator, in con-*
 18 *junction with the Secretary of Agriculture, shall promulgate*
 19 *regulations governing the examination and auditing of off-*
 20 *set allowances.*

21 (b) *REQUIREMENTS.*—*The regulations promulgated*
 22 *under this section shall specifically consider—*

23 (1) *principles for initiating and conducting ex-*
 24 *aminations;*

1 (2) *the type or scope of examinations, includ-*
 2 *ing—*

3 (A) *reporting and recordkeeping; and*

4 (B) *site review or visitation;*

5 (3) *the rights and privileges of an examined*
 6 *party; and*

7 (4) *the establishment of an appeal process.*

8 **SEC. 2408. TIMING AND THE PROVISION OF OFFSET ALLOW-**
 9 **ANCES.**

10 (a) *INITIATION OF OFFSET PROJECTS.—An offset*
 11 *project that commences operation on or after the effective*
 12 *date of regulations promulgated under section 2407(a) shall*
 13 *be eligible to generate offset allowances under this subtitle*
 14 *if the offset project meets the other applicable requirements*
 15 *of this subtitle.*

16 (b) *PRE-EXISTING PROJECTS.—*

17 (1) *IN GENERAL.—The Administrator may allow*
 18 *for the transition into the Registry of offset projects*
 19 *and banked offset allowances that, as of the effective*
 20 *date of regulations promulgated under section*
 21 *2407(a), are registered under or meet the standards of*
 22 *the Climate Registry, the California Action Registry,*
 23 *the GHG Registry, the Chicago Climate Exchange, the*
 24 *GHG CleanProjects Registry, or any other Federal,*
 25 *State, or private reporting programs or registries if*

1 *the Administrator determines that such other offset*
 2 *projects and banked offset allowances under those*
 3 *other programs or registries satisfy the applicable re-*
 4 *quirements of this subtitle.*

5 (2) *EXCEPTION.—An offset allowance that is ex-*
 6 *pired, retired, or canceled under any other offset pro-*
 7 *gram, registry, or market as of the effective date of*
 8 *regulations promulgated under section 2407(a) shall*
 9 *be ineligible for transition into the Registry.*

10 **SEC. 2409. OFFSET REGISTRY.**

11 *In addition to the requirements established by section*
 12 *2404, an offset allowance registered under this subtitle shall*
 13 *be accompanied in the Registry by—*

14 (1) *a verification report submitted pursuant to*
 15 *section 2405(a);*

16 (2) *a reversal certification submitted pursuant to*
 17 *section 2406(b); and*

18 (3) *subject to the requirements of this subtitle,*
 19 *any other information identified by the Adminis-*
 20 *trator as being necessary to achieve the purposes of*
 21 *this subtitle.*

22 **SEC. 2410. ENVIRONMENTAL CONSIDERATIONS.**

23 (a) *COORDINATION TO MINIMIZE NEGATIVE EF-*
 24 *FECTS.—In promulgating regulations under this subtitle,*
 25 *the Administrator, in conjunction with the Secretary of Ag-*

1 riculture, shall act (including by rejecting projects, if nec-
2 essary) to avoid or minimize, to the maximum extent prac-
3 ticable, adverse effects on human health or the environment
4 resulting from the implementation of offset projects under
5 this subtitle.

6 (b) *REPORT ON POSITIVE EFFECTS.*—Not later than
7 2 years after the date of enactment of this Act, the Adminis-
8 trator, in conjunction with the Secretary of Agriculture,
9 shall submit to Congress a report detailing—

10 (1) the incentives, programs, or policies capable
11 of fostering improvements to human health or the en-
12 vironment in conjunction with the implementation of
13 offset projects under this subtitle; and

14 (2) the cost of those incentives, programs, or
15 policies.

16 (c) *USE OF NATIVE PLANT SPECIES IN OFFSET*
17 *PROJECTS.*—Not later than 18 months after the date of en-
18 actment of this Act, the Administrator, in conjunction with
19 the Secretary of Agriculture, shall promulgate regulations
20 for the selection, use, and storage of native and nonnative
21 plant materials—

22 (1) to ensure native plant materials are given
23 primary consideration, in accordance with applicable
24 Department of Agriculture guidance for use of native
25 plant materials;

1 (2) *to prohibit the use of Federal- or State-des-*
2 *ignated noxious weeds; and*

3 (3) *to prohibit the use of a species listed by a re-*
4 *gional or State invasive plant council within the ap-*
5 *plicable region or State.*

6 **SEC. 2411. PROGRAM REVIEW.**

7 *Not later than 5 years after the date of enactment of*
8 *this Act, and periodically thereafter, the Administrator, in*
9 *conjunction with the Secretary of Agriculture, shall review*
10 *and revise, as necessary to achieve the purposes of this Act,*
11 *the regulations promulgated under this subtitle.*

12 **SEC. 2412. RETAIL CARBON OFFSETS.**

13 (a) *DEFINITION OF RETAIL CARBON OFFSET.—In this*
14 *section, the term “retail carbon offset” means any carbon*
15 *credit or carbon offset that cannot be used in satisfaction*
16 *of any mandatory compliance obligation under a regu-*
17 *latory system for reducing greenhouse gas emissions.*

18 (b) *QUALIFYING LEVELS AND REQUIREMENTS.—Not*
19 *later than January 1, 2009, the Administrator shall estab-*
20 *lish new qualifying levels and requirements for Energy Star*
21 *certification for retail carbon offsets, effective beginning*
22 *January 1, 2010.*

1 ***Subtitle E—International Emission***
 2 ***Allowances***

3 ***SEC. 2501. USE OF INTERNATIONAL EMISSION ALLOW-***
 4 ***ANCES.***

5 *The owner or operator of a covered facility may satisfy*
 6 *up to 15 percent of the allowance submission requirement*
 7 *of the covered facility under section 1202(a) by submitting*
 8 *emission allowances obtained on a foreign greenhouse gas*
 9 *emissions trading market, on the condition that the Admin-*
 10 *istrator has certified the market in accordance with the reg-*
 11 *ulations promulgated pursuant to section 2502(a).*

12 ***SEC. 2502. REGULATIONS.***

13 *(a) IN GENERAL.—Not later than 2 years after the*
 14 *date of enactment of this Act, the Administrator shall pro-*
 15 *mulgate regulations, taking into consideration protocols*
 16 *adopted in accordance with the United Nations Framework*
 17 *Convention on Climate Change, done at New York on May*
 18 *9, 1992—*

19 *(1) approving the use under this subtitle of emis-*
 20 *sion allowances from such foreign greenhouse gas*
 21 *emissions trading markets as the regulations may es-*
 22 *tablish; and*

23 *(2) permitting the use of international emission*
 24 *allowances from the foreign country that issued the*
 25 *emission allowances.*

1 (b) *REQUIREMENTS.*—*The regulations promulgated*
 2 *under subsection (a) shall require that, in order to be ap-*
 3 *proved for use under this subtitle—*

4 (1) *an emission allowance shall have been issued*
 5 *by a foreign country pursuant to a governmental pro-*
 6 *gram that imposes mandatory absolute tonnage limits*
 7 *on greenhouse gas emissions from the foreign country,*
 8 *or 1 or more industry sectors in that country, pursu-*
 9 *ant to protocols described in subsection (a); and*

10 (2) *the governmental program be of comparable*
 11 *stringency to the program established by this Act, in-*
 12 *cluding comparable monitoring, compliance, and en-*
 13 *forcement.*

14 **SEC. 2503. FACILITY CERTIFICATION.**

15 *The owner or operator of a covered facility who sub-*
 16 *mits an international emission allowance under this sub-*
 17 *title shall certify that the allowance has not been retired*
 18 *from use in the registry of the applicable foreign country.*

19 ***Subtitle F—Carbon Market***
 20 ***Efficiency Board***

21 **SEC. 2601. PURPOSES.**

22 *The purposes of this subtitle are—*

23 (1) *to ensure that the imposition of limits on*
 24 *greenhouse gas emissions will not significantly harm*
 25 *the economy of the United States; and*

1 (2) *to establish a Carbon Market Efficiency*
 2 *Board to ensure the implementation and maintenance*
 3 *of a stable, functioning, and efficient market in emis-*
 4 *sion allowances.*

5 **SEC. 2602. ESTABLISHMENT OF CARBON MARKET EFFI-**
 6 **CIENCY BOARD.**

7 (a) *ESTABLISHMENT.*—*There is established a board, to*
 8 *be known as the “Carbon Market Efficiency Board” (re-*
 9 *ferred to in this subtitle as the “Board”).*

10 (b) *PURPOSES.*—*The purposes of the Board are—*

11 (1) *to promote the achievement of the purposes of*
 12 *this Act;*

13 (2) *to observe the national greenhouse gas emis-*
 14 *sion market and evaluate periods during which the*
 15 *cost of emission allowances provided under Federal*
 16 *law might pose significant harm to the economy; and*

17 (3) *to submit to the President and Congress, and*
 18 *publish on the Internet, quarterly reports—*

19 (A) *describing—*

20 (i) *the status of the emission allowance*
 21 *market established under this Act;*

22 (ii) *the economic cost and benefits of*
 23 *the market, regional, industrial, and con-*
 24 *sumer responses to the market;*

1 (iii) where practicable, energy invest-
2 ment responses to the market;

3 (iv) any corrective measures that
4 should be carried out to relieve excessive net
5 costs of the market;

6 (v) plans to compensate for those meas-
7 ures to ensure that the long-term emission-
8 reduction goals of this Act are achieved; and

9 (vi) any instances of actual or poten-
10 tial fraud on, or manipulation of, the mar-
11 ket that the Board has identified, and the
12 effects of such fraud or manipulation;

13 (B) that are timely and succinct to ensure
14 regular monitoring of market trends; and

15 (C) that are prepared independently by the
16 Board.

17 (c) MEMBERSHIP.—

18 (1) COMPOSITION.—The Board shall be composed
19 of—

20 (A) 7 members who are citizens of the
21 United States, to be appointed by the President,
22 by and with the advice and consent of the Sen-
23 ate; and

24 (B) an advisor who is a scientist with ex-
25 pertise in climate change and the effects of cli-

1 *mate change on the environment, to be appointed*
2 *by the President, by and with the advice and*
3 *consent of the Senate.*

4 (2) *REQUIREMENTS.—In appointing members of*
5 *the Board under paragraph (1), the President shall—*

6 (A) *ensure fair representation of the finan-*
7 *cial, agricultural, industrial, and commercial*
8 *sectors, and the geographical regions, of the*
9 *United States, and include a representative of*
10 *consumer interests;*

11 (B) *appoint not more than 1 member from*
12 *each such geographical region; and*

13 (C) *ensure that not more than 4 members of*
14 *the Board serving at any time are affiliated with*
15 *the same political party.*

16 (3) *COMPENSATION.—*

17 (A) *IN GENERAL.—A member of the Board*
18 *shall be compensated at a rate equal to the daily*
19 *equivalent of the annual rate of basic pay pre-*
20 *scribed for level II of the Executive Schedule*
21 *under section 5313 of title 5, United States Code,*
22 *for each day (including travel time) during*
23 *which the member is engaged in the performance*
24 *of the duties of the Board.*

1 (B) *CHAIRPERSON.*—*The Chairperson of the*
 2 *Board shall be compensated at a rate equal to*
 3 *the daily equivalent of the annual rate of basic*
 4 *pay prescribed for level I of the Executive Sched-*
 5 *ule under section 5312 of title 5, United States*
 6 *Code, for each day (including travel time) dur-*
 7 *ing which the member is engaged in the perform-*
 8 *ance of the duties of the Board.*

9 (4) *PROHIBITIONS.*—

10 (A) *CONFLICTS OF INTEREST.*—*An indi-*
 11 *vidual employed by, or holding any official rela-*
 12 *tionship (including any shareholder) with, any*
 13 *entity engaged in the generation, transmission,*
 14 *distribution, or sale of energy, an individual*
 15 *who has any pecuniary interest in the genera-*
 16 *tion, transmission, distribution, or sale of en-*
 17 *ergy, or an individual who has a pecuniary in-*
 18 *terest in the implementation of this Act, shall*
 19 *not be appointed to the Board under this sub-*
 20 *section.*

21 (B) *NO OTHER EMPLOYMENT.*—*A member*
 22 *of the Board shall not hold any other employ-*
 23 *ment during the term of service of the member.*

24 (d) *TERM; VACANCIES.*—

25 (1) *TERM.*—

1 (A) *IN GENERAL.*—*The term of a member of*
 2 *the Board shall be 14 years, except that the*
 3 *members first appointed to the Board shall be*
 4 *appointed for terms in a manner that ensures*
 5 *that—*

6 (i) *the term of not more than 1 mem-*
 7 *ber shall expire during any 2-year period;*
 8 *and*

9 (ii) *no member serves a term of more*
 10 *than 14 years.*

11 (B) *OATH OF OFFICE.*—*A member shall*
 12 *take the oath of office of the Board by not later*
 13 *than 15 days after the date on which the member*
 14 *is appointed under subsection (c)(1).*

15 (C) *REMOVAL.*—

16 (i) *IN GENERAL.*—*A member may be*
 17 *removed from the Board on determination*
 18 *of the President for cause.*

19 (ii) *NOTIFICATION.*—*Not later than 30*
 20 *days before removing a member from the*
 21 *Board for cause under clause (i), the Presi-*
 22 *dent shall provide to Congress an advance*
 23 *notification of the determination by the*
 24 *President to remove the member.*

25 (2) *VACANCIES.*—

1 (A) *IN GENERAL.*—A vacancy on the
2 Board—

3 (i) shall not affect the powers of the
4 Board; and

5 (ii) shall be filled in the same manner
6 as the original appointment was made.

7 (B) *SERVICE UNTIL NEW APPOINTMENT.*—A
8 member of the Board the term of whom has ex-
9 pired or otherwise been terminated shall continue
10 to serve until the date on which a replacement
11 is appointed under subparagraph (A)(ii), if the
12 President determines that service to be appro-
13 priate.

14 (e) *CHAIRPERSON AND VICE-CHAIRPERSON.*—Of mem-
15 bers of the Board, the President shall appoint—

16 (1) 1 member to serve as Chairperson of the
17 Board for a term of 4 years; and

18 (2) 1 member to serve as Vice-Chairperson of the
19 Board for a term of 4 years.

20 (f) *MEETINGS.*—

21 (1) *INITIAL MEETING.*—The Board shall hold the
22 initial meeting of the Board as soon as practicable
23 after the date on which all members have been ap-
24 pointed to the Board under subsection (c)(1).

1 (2) *PRESIDING OFFICER.*—A meeting of the
2 *Board shall be presided over by—*

3 (A) *the Chairperson;*

4 (B) *in any case in which the Chairperson*
5 *is absent, the Vice-Chairperson; or*

6 (C) *in any case in which the Chairperson*
7 *and Vice-Chairperson are absent, a chairperson*
8 *pro tempore, to be elected by the members of the*
9 *Board.*

10 (3) *QUORUM.*—*Four members of the Board shall*
11 *constitute a quorum for a meeting of the Board.*

12 (4) *OPEN MEETINGS.*—*The Board shall be subject*
13 *to section 552b of title 5, United States Code (com-*
14 *monly known as the “Government in the Sunshine*
15 *Act”).*

16 (g) *RECORDS.*—*The Board shall be subject to section*
17 *552 of title 5, United States Code (commonly known as the*
18 *“Freedom of Information Act”).*

19 (h) *REVIEW BY GOVERNMENT ACCOUNTABILITY OF-*
20 *FICE.*—*Not later than January 1, 2013, and annually*
21 *thereafter, the Comptroller General of the United States*
22 *shall conduct a review of the efficacy of the Board in ful-*
23 *filling the purposes and duties of the Board under this sub-*
24 *title.*

1 **SEC. 2603. DUTIES.**

2 (a) *INFORMATION GATHERING.*—

3 (1) *AUTHORITY.*—*The Board shall collect and*
4 *analyze relevant market information to promote a full*
5 *understanding of the dynamics of the emission allow-*
6 *ance market established under this Act.*

7 (2) *INFORMATION.*—*The Board shall gather such*
8 *information as the Board determines to be appro-*
9 *priate regarding the status of the market, including*
10 *information relating to—*

11 (A) *emission allowance allocation and*
12 *availability;*

13 (B) *the price of emission allowances;*

14 (C) *macro- and micro-economic effects of*
15 *unexpected significant increases and decreases in*
16 *emission allowance prices, or shifts in the emis-*
17 *sion allowance market, should those increases,*
18 *decreases, or shifts occur;*

19 (D) *economic effect thresholds that could*
20 *warrant implementation of cost relief measures*
21 *described in section 2604(a) after the initial 2-*
22 *year period described in subsection (d)(2);*

23 (E) *in the event any cost relief measures de-*
24 *scribed in section 2604(a) are taken, the effects*
25 *of those measures on the market;*

1 (F) *maximum levels of cost relief measures*
 2 *that are necessary to achieve avoidance of eco-*
 3 *nomie harm and preserve achievement of the*
 4 *purposes of this Act; and*

5 (G) *the success of the market in promoting*
 6 *achievement of the purposes of this Act.*

7 (b) *TREATMENT AS PRIMARY ACTIVITY.—*

8 (1) *IN GENERAL.—During the initial 2-year pe-*
 9 *riod of operation of the Board, information gathering*
 10 *under subsection (a) shall be the primary activity of*
 11 *the Board.*

12 (2) *SUBSEQUENT AUTHORITY.—After the 2-year*
 13 *period described in paragraph (1), the Board shall as-*
 14 *sume authority to implement the cost-relief measures*
 15 *described in section 2604(a).*

16 (c) *STUDY.—*

17 (1) *IN GENERAL.—During the 2-year period be-*
 18 *ginning on the date on which the emission allowance*
 19 *market established under this Act begins operation,*
 20 *the Board shall conduct a study of other markets for*
 21 *tradeable permits to emit covered greenhouse gases.*

22 (2) *REPORT.—Not later than 180 days after the*
 23 *beginning of the period described in paragraph (1),*
 24 *the Board shall submit to Congress, and publish on*
 25 *the Internet, a report describing the status of the mar-*

1 *ket, specifically with respect to volatility within the*
 2 *market and the average price of emission allowances*
 3 *during that 180-day period.*

4 *(d) EMPLOYMENT OF COST RELIEF MEASURES.—*

5 *(1) IN GENERAL.—If the Board determines that*
 6 *the emission allowance market established under this*
 7 *Act poses a significant harm to the economy of the*
 8 *United States, the Board shall carry out such cost re-*
 9 *lief measures relating to that market as the Board de-*
 10 *termines to be appropriate under section 2604(a).*

11 *(2) INITIAL PERIOD.—During the 2-year period*
 12 *beginning on the date on which the emission allow-*
 13 *ance market established under this Act begins oper-*
 14 *ation, if the Board determines that the average daily*
 15 *closing price of emission allowances during a 180-day*
 16 *period exceeds the upper range of the estimate pro-*
 17 *vided under section 2605, the Board shall—*

18 *(A) increase the quantity of emission allow-*
 19 *ances that covered facilities may borrow from the*
 20 *prescribed allocations of the covered facilities for*
 21 *future years; and*

22 *(B) take subsequent action as described in*
 23 *section 2604(a)(2).*

1 (3) *REQUIREMENTS.*—Any action carried out
 2 pursuant to this subsection shall be subject to the re-
 3 quirements of section 2604(a)(3)(B).

4 (e) *REPORTS.*—The Board shall submit to the Presi-
 5 dent and Congress quarterly reports—

6 (1) *describing the status of the emission allow-*
 7 *ance market established under this Act, the economic*
 8 *effects of the market, regional, industrial, and con-*
 9 *sumer responses to the market, energy investment re-*
 10 *sponses to the market, the effects on the market of any*
 11 *fraud on, or manipulation of, the market that the*
 12 *Board has identified, any corrective measures that*
 13 *should be carried out to relieve excessive costs of the*
 14 *market, and plans to compensate for those measures;*
 15 *and*

16 (2) *that are prepared independently by the*
 17 *Board, and not in partnership with Federal agencies.*

18 **SEC. 2604. POWERS.**

19 (a) *COST RELIEF MEASURES.*—

20 (1) *IN GENERAL.*—Beginning on the day after
 21 the date of expiration of the 2-year period described
 22 in section 2603(b), the Board may carry out 1 or
 23 more of the following cost relief measures to ensure
 24 functioning, stable, and efficient markets for emission
 25 allowances:

1 (A) Increase the quantity of emission allow-
2 ances that covered facilities may borrow from the
3 prescribed allocations of the covered facilities for
4 future years.

5 (B) Expand the period during which a cov-
6 ered facility may repay the Administrator for an
7 emission allowance as described in subparagraph
8 (A).

9 (C) Lower the interest rate at which an
10 emission allowance may be borrowed as described
11 in subparagraph (A).

12 (D) Increase the quantity of emission allow-
13 ances obtained on a foreign greenhouse gas emis-
14 sions trading market that the owner or operator
15 of any covered facility may use to satisfy the al-
16 lowance submission requirement of the covered
17 facility under section 1202(a), on the condition
18 that the Administrator has certified the market
19 in accordance with the regulations promulgated
20 pursuant to section 2502(a).

21 (E) Increase the quantity of offset allow-
22 ances generated in accordance with subtitle D
23 that the owner or operator of any covered facility
24 may use to satisfy the total allowance submission

1 *requirement of the covered facility under section*
2 *1202(a).*

3 *(F) Expand the total quantity of emission*
4 *allowances made available to all covered facili-*
5 *ties at any given time by borrowing against the*
6 *total allowable quantity of emission allowances*
7 *to be provided for future years.*

8 *(2) SUBSEQUENT ACTIONS.—On determination*
9 *by the Board to carry out a cost relief measure pursu-*
10 *ant to paragraph (1), the Board shall—*

11 *(A) allow the cost relief measure to be used*
12 *only during the applicable allocation year;*

13 *(B) exercise the cost relief measure incre-*
14 *mentally, and only as needed to avoid signifi-*
15 *cant economic harm during the applicable allo-*
16 *cation year;*

17 *(C) specify the terms of the relief to be*
18 *achieved using the cost relief measure, including*
19 *requirements for entity-level or national market-*
20 *level compensation to be achieved by a specific*
21 *date or within a specific time period;*

22 *(D) in accordance with section 2603(e), sub-*
23 *mit to the President and Congress a report de-*
24 *scribing the actions carried out by the Board*
25 *and recommendations for the terms under which*

1 *the cost relief measure should be authorized by*
 2 *Congress and carried out by Federal entities;*
 3 *and*

4 *(E) evaluate, at the end of the applicable al-*
 5 *location year, actions that need to be carried out*
 6 *during subsequent years to compensate for any*
 7 *cost relief measure carried out during the appli-*
 8 *cable allocation year.*

9 *(3) ACTION ON EXPANSION OF BORROWING.—*

10 *(A) IN GENERAL.—If the Board carries out*
 11 *a cost relief measure pursuant to paragraph (1)*
 12 *that results in the expansion of borrowing of*
 13 *emission allowances under this Act, and if the*
 14 *average daily closing price of emission allow-*
 15 *ances for the 180-day period beginning on the*
 16 *date on which borrowing is so expanded exceeds*
 17 *the upper range of the estimate provided under*
 18 *section 2605, the Board shall increase the quan-*
 19 *tity of emission allowances available for the ap-*
 20 *plicable allocation year in accordance with this*
 21 *paragraph.*

22 *(B) REQUIREMENTS.—An increase in the*
 23 *quantity of emission allowances under subpara-*
 24 *graph (A) shall—*

25 *(i) apply to all covered facilities;*

1 (ii) be allocated in accordance with the
2 applicable formulas and procedures estab-
3 lished under this Act;

4 (iii) be equal to not more than 5 per-
5 cent of the total quantity of emission allow-
6 ances otherwise available for the applicable
7 allocation year under this Act;

8 (iv) remain in effect only for the appli-
9 cable allocation year;

10 (v) specify the date by which the in-
11 crease shall be repaid by covered facilities
12 through a proportionate reduction of emis-
13 sion allowances available for subsequent al-
14 location years; and

15 (vi) require the repayment under
16 clause (v) to be made by not later than the
17 date that is 15 years after the date on which
18 the increase is provided.

19 (b) *ASSESSMENTS.*—Not more frequently than semi-
20 annually, the Board may levy on owners and operators of
21 covered facilities an assessment sufficient to pay the esti-
22 mated expenses of the Board and the salaries of members
23 of and employees of the Board during the 180-day period
24 beginning on the date on which the assessment is levied,

1 *taking into account any deficit carried forward from the*
 2 *preceding 180-day period.*

3 (c) *LIMITATIONS.—Nothing in this section gives the*
 4 *Board the authority—*

5 (1) *to consider or prescribe entity-level petitions*
 6 *for relief from the costs of an emission allowance allo-*
 7 *cation or trading program established under Federal*
 8 *law;*

9 (2) *to carry out any investigative or punitive*
 10 *process under the jurisdiction of any Federal or State*
 11 *court;*

12 (3) *to interfere with, modify, or adjust any emis-*
 13 *sion allowance allocation scheme established under*
 14 *Federal law; or*

15 (4) *to modify the total quantity of emission al-*
 16 *lowances issued under this Act for the period of cal-*
 17 *endar years 2012 through 2050.*

18 **SEC. 2605. ESTIMATE OF COSTS TO ECONOMY OF LIMITING**
 19 **GREENHOUSE GAS EMISSIONS.**

20 *Not later than July 1, 2014, the Director of the Con-*
 21 *gressional Budget Office, using economic and scientific*
 22 *analyses, shall submit to Congress a report that describes—*

23 (1) *the projected price range at which emission*
 24 *allowances are expected to trade during the 2-year pe-*

1 *riod of the initial greenhouse gas emission market es-*
 2 *tablished under Federal law; and*

3 *(2) the projected impact of that market on the*
 4 *economy of the United States.*

5 ***TITLE III—ALLOCATING AND***
 6 ***DISTRIBUTING ALLOWANCES***

7 ***Subtitle A—Auctions***

8 ***SEC. 3101. ALLOCATION FOR EARLY AUCTIONS.***

9 *Not later than 180 days after the date of enactment*
 10 *of this Act, the Administrator shall allocate 5 percent of*
 11 *the emission allowances established for calendar year 2012,*
 12 *3 percent of the emission allowances established for calendar*
 13 *year 2013, and 1 percent of the emissions established for*
 14 *calendar 2014, to the Corporation for early auctioning in*
 15 *accordance with section 4301.*

16 ***SEC. 3102. ALLOCATION FOR ANNUAL AUCTIONS.***

17 *Not later than April 1, 2011, and annually thereafter*
 18 *through calendar year 2049, the Administrator shall allo-*
 19 *cate to the Corporation for annual auctioning a percentage*
 20 *of emission allowances for the following calendar year, as*
 21 *follows:*

<i>Calendar Year</i>	<i>Percentage of Emission Allowance Account Allocated to the Corpora- tion</i>
<i>2012</i>	<i>21.5</i>
<i>2013</i>	<i>24.5</i>

<i>Calendar Year</i>	<i>Percentage of Emission Allowance Account Allocated to the Corpora- tion</i>
<i>2014</i>	<i>27.5</i>
<i>2015</i>	<i>29.5</i>
<i>2016</i>	<i>30.5</i>
<i>2017</i>	<i>31.5</i>
<i>2018</i>	<i>33.5</i>
<i>2019</i>	<i>34.5</i>
<i>2020</i>	<i>36.5</i>
<i>2021</i>	<i>39.75</i>
<i>2022</i>	<i>41</i>
<i>2023</i>	<i>43.25</i>
<i>2024</i>	<i>45.75</i>
<i>2025</i>	<i>48.5</i>
<i>2026</i>	<i>51.5</i>
<i>2027</i>	<i>55.5</i>
<i>2028</i>	<i>58.5</i>
<i>2029</i>	<i>61.5</i>
<i>2030</i>	<i>62.75</i>
<i>2031</i>	<i>69.5</i>
<i>2032</i>	<i>69.5</i>
<i>2033</i>	<i>69.5</i>
<i>2034</i>	<i>69.5</i>
<i>2035</i>	<i>69.5</i>
<i>2036</i>	<i>69.5</i>
<i>2037</i>	<i>69.5</i>
<i>2038</i>	<i>69.5</i>
<i>2039</i>	<i>69.5</i>

<i>Calendar Year</i>	<i>Percentage of Emission Allowance Account Allocated to the Corpora- tion</i>
<i>2040</i>	<i>69.5</i>
<i>2041</i>	<i>69.5</i>
<i>2042</i>	<i>69.5</i>
<i>2043</i>	<i>69.5</i>
<i>2044</i>	<i>69.5</i>
<i>2045</i>	<i>69.5</i>
<i>2046</i>	<i>69.5</i>
<i>2047</i>	<i>69.5</i>
<i>2048</i>	<i>69.5</i>
<i>2049</i>	<i>69.5</i>
<i>2050</i>	<i>69.5</i>

1 ***Subtitle B—Early Action***

2 **SEC. 3201. ALLOCATION.**

3 *Not later than 2 years after the date of enactment of*
4 *this Act, the Administrator shall allocate to owners or oper-*
5 *ators of covered facilities and other facilities that emit*
6 *greenhouse gas, in recognition of actions of the owners and*
7 *operators taken since January 1, 1994, that resulted in*
8 *verified and credible reductions of greenhouse gas emis-*
9 *sions—*

10 (1) *5 percent of the emission allowances estab-*
11 *lished for calendar year 2012;*

12 (2) *4 percent of the emission allowances estab-*
13 *lished for calendar year 2013;*

1 (3) 3 percent of the emission allowances estab-
 2 lished for calendar year 2014;

3 (4) 2 percent of the emission allowances estab-
 4 lished for calendar year 2015; and

5 (5) 1 percent of the emission allowances estab-
 6 lished for calendar year 2016.

7 **SEC. 3202. DISTRIBUTION.**

8 (a) *IN GENERAL.*—Not later than 1 year after the date
 9 of enactment of this Act, the Administrator shall establish,
 10 by regulation, procedures and standards for use in distrib-
 11 uting, to owners and operators of covered facilities and
 12 other facilities that emit greenhouse gas, emission allow-
 13 ances allocated under section 3201.

14 (b) *CONSIDERATION.*—The procedures and standards
 15 established under subsection (a) shall provide for consider-
 16 ation of verified and credible emission reductions registered
 17 before the date of enactment of this Act under—

18 (1) the Climate Leaders Program, or any other
 19 voluntary greenhouse gas reduction program of the
 20 United States Environmental Protection Agency and
 21 United States Department of Energy;

22 (2) the Voluntary Reporting of Greenhouse Gases
 23 Program of the Energy Information Administration;

24 (3) State or regional greenhouse gas emission re-
 25 duction programs that include systems for tracking

1 *and verifying the greenhouse gas emission reductions;*
 2 *and*

3 *(4) voluntary entity programs that resulted in*
 4 *entity-wide reductions in greenhouse gas emissions.*

5 *(c) DISTRIBUTION.—Not later than 4 years after the*
 6 *date of enactment of this Act, the Administrator shall dis-*
 7 *tribute all emission allowances allocated under section*
 8 *3201.*

9 ***Subtitle C—States***

10 ***SEC. 3301. ALLOCATION FOR ENERGY SAVINGS.***

11 *(a) ALLOCATION.—Not later than April 1, 2011, and*
 12 *annually thereafter through calendar year 2049, the Admin-*
 13 *istrator shall allocate 2 percent of the Emission Allowance*
 14 *Account for the following calendar year among States that*
 15 *have adopted regulations by not later than the date on*
 16 *which the allowance allocations are made, that subject regu-*
 17 *lated natural gas and electric utilities that deliver gas or*
 18 *electricity in those States to regulations that—*

19 *(1) automatically adjust the rates charged by*
 20 *natural gas and electric utilities to fully recover fixed*
 21 *costs of service without regard to whether their actual*
 22 *sales are higher or lower than the forecast of sales on*
 23 *which the tariffed rates were based; and*

24 *(2) make cost-effective energy-efficiency expendi-*
 25 *tures by investor-owned natural gas or electric utili-*

1 *ties at least as rewarding to their shareholders as*
2 *power or energy purchases, or expenditures on new*
3 *energy supplies or infrastructure.*

4 *(b) ALLOCATION FOR BUILDING EFFICIENCY.—Not*
5 *later than January 1, 2012, and annually thereafter*
6 *through January 1, 2050, the Administrator shall allocate*
7 *1 percent of the Emission Allowance Account among States*
8 *that are in compliance with section 304(c) of the Energy*
9 *Conservation and Production Act (as amended by section*
10 *5201).*

11 *(c) DISTRIBUTION.—Not later than 2 years after the*
12 *date of enactment of this Act, the Administrator shall estab-*
13 *lish procedures and standards for the distribution of emis-*
14 *sion allowances to States in accordance with subsections (a)*
15 *and (b).*

16 *(d) USE.—Any State receiving emission allowances*
17 *under this section for a calendar year shall retire or use,*
18 *in 1 or more of the ways described in section 3303(c)(1),*
19 *not less than 90 percent of the emission allowances allocated*
20 *to the State (or proceeds of the sale of those allowances)*
21 *under this section for the calendar year.*

1 **SEC. 3302. ALLOCATION FOR STATES WITH PROGRAMS**
2 **THAT EXCEED FEDERAL EMISSION REDUC-**
3 **TION TARGETS.**

4 (a) *ALLOCATION.*—Not later than April 1, 2011, and
5 annually thereafter through calendar year 2049, the Admin-
6 istrator shall allocate 2 percent of the Emission Allowance
7 Account for the following calendar year among States that
8 have—

9 (1) *before the date of enactment of this Act, en-*
10 *acted statewide greenhouse gas emission reduction*
11 *targets that are more stringent than the nationwide*
12 *targets established under title II; and*

13 (2) *by the time of an allocation under this sub-*
14 *section, imposed on covered facilities within the*
15 *States aggregate greenhouse gas emission limitations*
16 *more stringent than those imposed on covered facili-*
17 *ties under title II.*

18 (b) *DISTRIBUTION.*—Not later than 2 years after the
19 date of enactment of this Act, the Administrator shall estab-
20 lish procedures and standards for use in distributing emis-
21 sion allowances among States in accordance with subsection
22 (a).

23 (c) *USE.*—Any State receiving emission allowances
24 under this section for a calendar year shall retire or use,
25 in 1 or more of the ways described in section 3303(c)(1),
26 not less than 90 percent of the emission allowances allocated

1 *to the State (or proceeds of the sale of those allowances)*
 2 *under this section for the calendar year.*

3 **SEC. 3303. GENERAL ALLOCATION.**

4 *(a) ALLOCATION.—Subject to subsection (d)(3), not*
 5 *later than April 1, 2011, and annually thereafter through*
 6 *calendar year 2049, the Administrator shall allocate 5 per-*
 7 *cent of the Emission Allowance Account for the following*
 8 *calendar year among States.*

9 *(b) DISTRIBUTION.—The allowances available for allo-*
 10 *cation to States under subsection (a) for a calendar year*
 11 *shall be distributed as follows:*

12 *(1) For each calendar year, $\frac{1}{3}$ of the quantity of*
 13 *allowances available for allocation to States under*
 14 *subsection (a) shall be distributed among individual*
 15 *States based on the proportion that—*

16 *(A) the expenditures of a State for the low-*
 17 *income home energy assistance program estab-*
 18 *lished under the Low-Income Home Energy As-*
 19 *sistance Act of 1981 (42 U.S.C. 8621 et seq.) for*
 20 *the preceding calendar year; bears to*

21 *(B) the expenditures of all States for that*
 22 *program for the preceding calendar year.*

23 *(2) For each calendar year, $\frac{1}{3}$ of the quantity of*
 24 *allowances available for allocation to States under*

1 *subsection (a) shall be distributed among the States*
2 *based on the proportion that—*

3 *(A) the population of a State, as determined*
4 *by the most recent decennial census preceding the*
5 *calendar year for which the allocation regula-*
6 *tions are for the allocation year; bears to*

7 *(B) the population of all States, as deter-*
8 *mined by that census.*

9 *(3) For each calendar year, $\frac{1}{3}$ of the quantity of*
10 *allowances available for allocation to States under*
11 *subsection (a) shall be distributed among the States*
12 *based on the proportion that—*

13 *(A) the quantity of carbon dioxide that*
14 *would be emitted assuming that all of the coal*
15 *that is mined, natural gas that is processed, and*
16 *petroleum that is refined within the boundaries*
17 *of a State during the preceding year is com-*
18 *pletely combusted and that none of the carbon*
19 *dioxide emissions are captured, as determined by*
20 *the Secretary of Energy; bears to*

21 *(B) the aggregate quantity of carbon dioxide*
22 *that would be emitted assuming that all of the*
23 *coal that is mined, natural gas that is processed,*
24 *and petroleum that is refined in all States for*
25 *the preceding year is completely combusted and*

1 *that none of the carbon dioxide emissions are*
2 *captured, as determined by the Secretary of En-*
3 *ergy.*

4 *(c) USE.—*

5 *(1) IN GENERAL.—During any calendar year, a*
6 *State shall retire or use in 1 or more of the following*
7 *ways not less than 90 percent of the allowances allo-*
8 *cated to the State (or proceeds of sale of those emis-*
9 *sion allowances) under this section for that calendar*
10 *year:*

11 *(A) To mitigate impacts on low-income en-*
12 *ergy consumers.*

13 *(B) To promote energy efficiency (including*
14 *support of electricity and natural gas demand*
15 *reduction, waste minimization, and recycling*
16 *programs).*

17 *(C) To promote investment in nonemitting*
18 *electricity generation technology, including plan-*
19 *ning for the siting of facilities employing that*
20 *technology in States (including territorial waters*
21 *of States).*

22 *(D) To improve public transportation and*
23 *passenger rail service and otherwise promote re-*
24 *ductions in vehicle miles traveled.*

1 (E) To encourage advances in energy tech-
2 nology that reduce or sequester greenhouse gas
3 emissions.

4 (F) To address local or regional impacts of
5 climate change, including by accommodating,
6 protecting, or relocating affected communities
7 and public infrastructure.

8 (G) To collect, evaluate, disseminate, and
9 use information necessary for affected coastal
10 communities to adapt to climate change (such as
11 information derived from inundation prediction
12 systems).

13 (H) To mitigate obstacles to investment by
14 new entrants in electricity generation markets
15 and energy-intensive manufacturing sectors.

16 (I) To address local or regional impacts of
17 climate change policy, including providing as-
18 sistance to displaced workers.

19 (J) To mitigate impacts on energy-intensive
20 industries in internationally competitive mar-
21 kets.

22 (K) To reduce hazardous fuels, and to pre-
23 vent and suppress wildland fire.

1 (L) *To fund rural, municipal, and agricul-*
 2 *tural water projects that are consistent with the*
 3 *sustainable use of water resources.*

4 (M) *To fund any other purpose the States*
 5 *determine to be necessary to mitigate any nega-*
 6 *tive economic impacts as a result of—*

7 (i) *global warming; or*

8 (ii) *new regulatory requirements as a*
 9 *result of this Act.*

10 (2) *DEADLINE.—A State shall distribute or sell*
 11 *allowances for use in accordance with paragraph (1)*
 12 *by not later than the beginning of each allowance al-*
 13 *location year.*

14 (3) *RETURN OF ALLOWANCES.—Not later than*
 15 *330 days before the end of each allowance allocation*
 16 *year, a State shall return to the Administrator any*
 17 *allowances not distributed by the deadline under*
 18 *paragraph (2).*

19 (4) *USE FOR RECYCLING.—During any calendar*
 20 *year, a State shall retire or use not less than 5 per-*
 21 *cent of the emission allowances allocated to the State*
 22 *(or proceeds of sale of those emission allowances)*
 23 *under this section for increasing recycling rates*
 24 *through activities such as—*

25 (A) *improving recycling infrastructure;*

1 (B) increasing public education on the bene-
2 fits of recycling, particularly with respect to
3 greenhouse gases;

4 (C) improving residential, commercial, and
5 industrial collection of recyclables;

6 (D) improving recycling system efficiency;

7 (E) increasing recycling yields; and

8 (F) improving the quality and usefulness of
9 recycled materials.

10 (d) PROGRAM FOR TRIBAL COMMUNITIES.—

11 (1) ESTABLISHMENT.—Not later than 3 years
12 after the date of enactment of this Act, the Adminis-
13 trator, in consultation with the Secretary of the Inte-
14 rior, shall by regulation establish a program for trib-
15 al communities—

16 (A) that is designed to deliver assistance to
17 tribal communities within the United States that
18 face disruption or dislocation as a result of glob-
19 al climate change; and

20 (B) under which the Administrator shall
21 distribute 0.5 percent of the Emission Allowance
22 Account for each calendar among tribal govern-
23 ments of the tribal communities described in sub-
24 paragraph (A).

1 (2) *ALLOCATION.*—*Beginning in the first cal-*
 2 *endar year that begins after promulgation of the regu-*
 3 *lations referred to in paragraph (1), and annually*
 4 *thereafter until calendar year 2050, the Adminis-*
 5 *trator shall allocate 0.5 percent of the Emission Al-*
 6 *lowance Account for each calendar year to the pro-*
 7 *gram established under paragraph (1).*

8 **SEC. 3304. ALLOCATION FOR MASS TRANSIT.**

9 (a) *ALLOCATION.*—*Not later than April 1, 2011, and*
 10 *annually thereafter through calendar year 2049, the Admin-*
 11 *istrator shall allocate 1 percent of the Emission Allowance*
 12 *Account for the following calendar year among States.*

13 (b) *DISTRIBUTION.*—*The emission allowances avail-*
 14 *able for allocation to States under subsection (a) for a cal-*
 15 *endar year shall be distributed among the States based on*
 16 *the formula established in section 104(b)(1)(A) of title 23,*
 17 *United States Code.*

18 (c) *USE.*—*During any calendar year, a State receiv-*
 19 *ing emission allowances under this section shall—*

20 (1) *use the emission allowances (or proceeds of*
 21 *sale of those emission allowances) only for—*

22 (A) *the operating costs of State and munic-*
 23 *ipal mass transit systems;*

1 (B) efforts to increase mass transit service
 2 and ridership in the State, including by adding
 3 new mass transit systems; and

4 (C) efforts to increase the efficiency of mass
 5 transit systems through the development, pur-
 6 chase, or deployment of innovative technologies
 7 that reduce emissions of greenhouse gases; and

8 (2) shall ensure that use of the emission allow-
 9 ances (or proceeds of sale of those emission allow-
 10 ances) by the State for the purposes described in
 11 paragraph (1) is geographically distributed as fol-
 12 lows:

13 (A) At least 60 percent in urban areas.

14 (B) At least 20 percent in areas that are
 15 not urban areas.

16 (C) 20 percent as the State determines to be
 17 appropriate.

18 (d) *RETURN OF UNUSED EMISSION ALLOWANCES.*—
 19 Any State receiving emission allowances under this section
 20 shall return to the Administrator any such emission allow-
 21 ance that the State has failed to use in accordance with
 22 subsection (c) by not later than 5 years after the date of
 23 receipt of the emission allowance from the Administrator.

24 (e) *USE OF RETURNED EMISSION ALLOWANCES.*—The
 25 Administrator shall immediately transfer to the Corpora-

1 *tion for auctioning under section 4302 any emission allow-*
 2 *ances returned to the Administrator under subsection (d).*

3 ***Subtitle D—Electricity Consumers***

4 ***SEC. 3401. ALLOCATION.***

5 *Not later than April 1, 2011, and annually thereafter*
 6 *through calendar year 2049, the Administrator shall allo-*
 7 *cate among load-serving entities 9 percent of the Emission*
 8 *Allowance Account for the following calendar year.*

9 ***SEC. 3402. DISTRIBUTION.***

10 *(a) IN GENERAL.—For each calendar year, the emis-*
 11 *sion allowances allocated under section 3401 shall be dis-*
 12 *tributed by the Administrator to each load-serving entity,*
 13 *including each rural electric cooperative that serves as a*
 14 *load-serving entity in a State that is not a participant in*
 15 *the pilot program established under section 3903(a), based*
 16 *on the proportion that—*

17 *(1) the quantity of electricity delivered by the*
 18 *load-serving entity during the 3 calendar years pre-*
 19 *ceding the calendar year for which the emission al-*
 20 *lowances are distributed, adjusted upward for elec-*
 21 *tricity not delivered as a result of consumer energy-*
 22 *efficiency programs implemented by the load-serving*
 23 *entity and verified by the regulatory agency of the*
 24 *load-serving entity; bears to*

1 (2) *the total quantity of electricity delivered by*
 2 *all load-serving entities during those 3 calendar*
 3 *years.*

4 (b) *BASIS.*—*The Administrator shall base the deter-*
 5 *mination of the quantity of electricity delivered by a load-*
 6 *serving entity for the purpose of subsection (a) on the most*
 7 *recent data available in annual reports filed with the En-*
 8 *ergy Information Administration of the Department of En-*
 9 *ergy.*

10 **SEC. 3403. USE.**

11 (a) *IN GENERAL.*—*Any load-serving entity that ac-*
 12 *cepts emission allowances distributed under section 3402*
 13 *shall—*

14 (1) *sell each emission allowance distributed to*
 15 *the load-serving entity by not later than 1 year after*
 16 *receiving the emission allowance; and*

17 (2) *pursue fair market value for each emission*
 18 *allowance sold in accordance with paragraph (1).*

19 (b) *PROCEEDS.*—*All proceeds from the sale of emission*
 20 *allowances under subsection (a) shall be used solely—*

21 (1) *to mitigate economic impacts on low- and*
 22 *middle-income energy consumers, including by reduc-*
 23 *ing transmission charges or issuing rebates; and*

24 (2) *to promote energy efficiency on the part of*
 25 *energy consumers.*

1 (c) *PROHIBITION ON REBATES.*—No load-serving enti-
 2 ty may use any proceeds from the sale of emission allow-
 3 ances under subsection (a) to provide to any consumer a
 4 rebate that is based on the quantity of electricity used by
 5 the consumer.

6 **SEC. 3404. REPORTING.**

7 (a) *IN GENERAL.*—Each load-serving entity that ac-
 8 cepts emission allowances distributed under section 3402
 9 shall, for each calendar year for which the load-serving enti-
 10 ty accepts emission allowances, submit to the Administrator
 11 a report describing—

12 (1) the date of each sale of each emission allow-
 13 ance during the preceding year;

14 (2) the amount of revenue generated from the
 15 sale of emission allowances during the preceding year;
 16 and

17 (3) how, and to what extent, the load-serving en-
 18 tity used the proceeds of the sale of the emission al-
 19 lowances during the preceding year.

20 (b) *AVAILABILITY OF REPORTS.*—The Administrator
 21 shall make available to the public all reports submitted by
 22 any load-serving entity under subsection (b), including by
 23 publishing those reports on the Internet.

1 ***Subtitle E—Natural Gas Consumers***

2 ***SEC. 3501. ALLOCATION.***

3 *Not later than April 1, 2011, and annually thereafter*
 4 *through calendar year 2049, the Administrator shall allo-*
 5 *cate among natural gas local distribution companies 2 per-*
 6 *cent of the Emission Allowance Account for the following*
 7 *calendar year.*

8 ***SEC. 3502. DISTRIBUTION.***

9 *For each calendar year, the emission allowances allo-*
 10 *cated under section 3501 shall be distributed by the Admin-*
 11 *istrator to each natural gas local distribution company*
 12 *based on the proportion that—*

13 *(1) the quantity of natural gas delivered by the*
 14 *natural gas local distribution company during the 3*
 15 *calendar years preceding the calendar year for which*
 16 *the emission allowances are distributed, adjusted up-*
 17 *ward for natural gas not delivered as a result of con-*
 18 *sumer energy-efficiency programs implemented by the*
 19 *natural gas local distribution company and verified*
 20 *by the regulatory agency of the natural gas local dis-*
 21 *tribution company; bears to*

22 *(2) the total quantity of natural gas delivered by*
 23 *all natural gas local distribution companies during*
 24 *those 3 calendar years.*

1 **SEC. 3503. USE.**

2 (a) *IN GENERAL.*—Any natural gas local distribution
3 company that accepts emission allowances distributed
4 under section 3502 shall—

5 (1) sell each emission allowance distributed to
6 the natural gas local distribution company by not
7 later than 1 year after receiving the emission allow-
8 ance; and

9 (2) pursue fair market value for each emission
10 allowance sold in accordance with paragraph (1).

11 (b) *PROCEEDS.*—All proceeds from the sale of emission
12 allowances under subsection (a) shall be used solely—

13 (1) to mitigate economic impacts on low- and
14 middle-income energy consumers; and

15 (2) to promote energy efficiency on the part of
16 energy consumers.

17 (c) *PROHIBITION ON REBATES.*—No natural gas local
18 distribution company may use any proceeds from the sale
19 of emission allowances under subsection (a) to provide to
20 any consumer a rebate that is based on the quantity of nat-
21 ural gas used by the consumer.

22 **SEC. 3504. REPORTING.**

23 (a) *IN GENERAL.*—Each natural gas local distribution
24 company that accepts emission allowances distributed
25 under section 3502 shall, for each calendar year for which
26 the natural gas local distribution company accepts emission

1 allowances, submit to the Administrator a report describ-
 2 ing—

3 (1) the date of each sale of each emission allow-
 4 ance during the preceding year;

5 (2) the amount of revenue generated from the
 6 sale of emission allowances during the preceding year;
 7 and

8 (3) how, and to what extent, the natural gas
 9 local distribution company used the proceeds of the
 10 sale of the emission allowances during the preceding
 11 year.

12 (b) *AVAILABILITY OF REPORTS.*—The Administrator
 13 shall make available to the public all reports submitted by
 14 any natural gas local distribution company under sub-
 15 section (a), including by publishing those reports on the
 16 Internet.

17 ***Subtitle F—Bonus Allowances for***
 18 ***Carbon Capture and Geological***
 19 ***Sequestration***

20 ***SEC. 3601. ALLOCATION.***

21 Not later than 3 years after the date of enactment of
 22 this Act, the Administrator shall—

23 (1) establish a Bonus Allowance Account; and

1 (2) *allocate 4 percent of the emission allowances*
 2 *established for calendar years 2012 through 2030 to*
 3 *the Bonus Allowance Account.*

4 **SEC. 3602. QUALIFYING PROJECTS.**

5 (a) *DEFINITIONS.—In this section:*

6 (1) *COMMENCED.—The term “commenced”, with*
 7 *respect to construction, means that an owner or oper-*
 8 *ator has obtained the necessary permits to undertake*
 9 *a continuous program of construction and has entered*
 10 *into a binding contractual obligation, with substan-*
 11 *tial financial penalties for cancellation, to undertake*
 12 *such a program.*

13 (2) *CONSTRUCTION.—The term “construction”*
 14 *means the fabrication, erection, or installation of the*
 15 *technology for the carbon capture and sequestration*
 16 *project.*

17 (b) *ELIGIBILITY.—To be eligible to receive emission al-*
 18 *lowances under this subtitle, a carbon capture and seques-*
 19 *tration project shall—*

20 (1) *comply with such criteria and procedures as*
 21 *the Administrator may establish, including a require-*
 22 *ment, as prescribed in subsection (c), for an annual*
 23 *emissions performance standard for carbon dioxide*
 24 *emissions from any unit for which allowances are al-*
 25 *located;*

1 (2) *sequester, in a geological formation permitted*
 2 *by the Administrator for that purpose in accordance*
 3 *with regulations promulgated under part C of the*
 4 *Safe Drinking Water Act (42 U.S.C. 300h et seq.),*
 5 *carbon dioxide captured from any unit for which al-*
 6 *lowances are allocated; and*

7 (3) *have begun operation during the period be-*
 8 *ginning on January 1, 2008, and ending on Decem-*
 9 *ber 31, 2035.*

10 (c) *EMISSION PERFORMANCE STANDARDS.*—*Subject to*
 11 *subsection (d), a carbon capture and sequestration project*
 12 *shall be eligible to receive emission allowances under this*
 13 *subtitle only if the project achieves 1 of the following emis-*
 14 *sions performance standards for limiting carbon dioxide*
 15 *emissions from the unit on an annual average basis:*

16 (1) *For an electric generation unit that is not a*
 17 *new entrant, an annual emissions rate of not more*
 18 *than 1,200 pounds of carbon dioxide per megawatt-*
 19 *hour of net electricity generation, after subtracting*
 20 *the carbon dioxide that is captured and sequestered.*

21 (2) *For a new entrant electric generation unit*
 22 *for which construction of the unit commenced prior to*
 23 *July 1, 2018, an annual emissions rate of not more*
 24 *than 800 pounds of carbon dioxide per megawatt-hour*

1 *of net electricity generation, after subtracting the car-*
 2 *bon dioxide that is captured and sequestered.*

3 (3) *For a new entrant electric generation unit*
 4 *for which construction of the unit commenced on or*
 5 *after July 1, 2018, an annual emissions rate of not*
 6 *more than 350 pounds of carbon dioxide per mega-*
 7 *watt-hour of net electricity generation, after sub-*
 8 *tracting the carbon dioxide that is captured and se-*
 9 *questered.*

10 (4) *For any unit at a covered facility that is not*
 11 *an electric generation unit, an annual emissions rate*
 12 *that is achieved by the capture and sequestration of*
 13 *a minimum of 85 percent of the total carbon dioxide*
 14 *emissions produced by the unit.*

15 (d) *ADJUSTMENT OF PERFORMANCE STANDARDS.—*

16 (1) *IN GENERAL.—The Corporation may adjust*
 17 *the emissions performance standard for a carbon cap-*
 18 *ture and sequestration project under subsection (c) for*
 19 *an electric generation unit that uses subbituminous*
 20 *coal, lignite, or petroleum coke in significant*
 21 *amounts.*

22 (2) *REQUIREMENT.—In any case described in*
 23 *paragraph (1), the performance standard for the*
 24 *project shall prescribe an annual emissions rate that*
 25 *requires the project to achieve an equivalent reduction*

1 *from uncontrolled carbon dioxide emissions levels*
 2 *from the use of subbituminous coal, lignite, or petro-*
 3 *leum coke, as compared to the emissions that the*
 4 *project would have achieved if that unit had com-*
 5 *busted only bituminous coal during the particular*
 6 *year.*

7 **SEC. 3603. DISTRIBUTION.**

8 *(a) IN GENERAL.—Subject to section 3604, for each of*
 9 *calendar years 2012 through 2039, the Administrator shall*
 10 *distribute emission allowances from the Bonus Allowance*
 11 *Account to each qualifying project under this subtitle in*
 12 *a quantity equal to the product obtained by multiplying—*

13 *(1) the bonus allowance adjustment factor, as de-*
 14 *termined under subsection (b);*

15 *(2) the number of metric tons of carbon dioxide*
 16 *emissions avoided through capture and geologic se-*
 17 *questration of emissions by the project; and*

18 *(3) the bonus allowance rate for that calendar*
 19 *year, as provided in the following table:*

Year	Bonus Allowance Rate
2012	4.5
2013	4.5
2014	4.5
2015	4.5
2016	4.5
2017	4.5
2018	4.2
2019	3.9
2020	3.6
2021	3.3
2022	3.0

Year	Bonus Allowance Rate
2023	2.7
2024	2.4
2025	2.1
2026	1.8
2027	1.5
2028	1.3
2029	1.1
2030	0.9
2031	0.7
2032	0.5
2033	0.5
2034	0.5
2035	0.5
2036	0.5
2037	0.5
2038	0.5
2039	0.5

1 *(b) BONUS ALLOWANCE ADJUSTMENT RATIO.—The*
2 *Administrator shall determine the bonus allowance adjust-*
3 *ment factor by dividing a carbon dioxide emissions rate of*
4 *350 pounds per megawatt-hour by the annual carbon diox-*
5 *ide emissions rate, on a pounds per megawatt-hour basis,*
6 *that a qualifying project at the electric generation unit*
7 *achieved during a particular year, except that—*

8 *(1) the factor shall be equal to 1 in the case of*
9 *a project that qualifies under section 3602(c)(1) dur-*
10 *ing the first 4 years that emissions allowances are*
11 *distributed to the project; and*

12 *(2) the factor shall not exceed 1 for any quali-*
13 *fying project.*

14 **SEC. 3604. 10-YEAR LIMIT.**

15 *A qualifying project may receive annual emission al-*
16 *lowances under this subsection only for—*

1 (1) *the first 10 years of operation; or*

2 (2) *if the unit covered by the qualifying project*
3 *began operating before January 1, 2012, the period of*
4 *calendar years 2012 through 2021.*

5 **SEC. 3605. EXHAUSTION OF BONUS ALLOWANCE ACCOUNT.**

6 *If, at the beginning of a calendar year, the Adminis-*
7 *trator determines that the number of emission allowances*
8 *remaining in the Bonus Allowance Account will be insuffi-*
9 *cient to allow the distribution, in that calendar year, of*
10 *the number of allowances that otherwise would be distrib-*
11 *uted under section 3603 for the calendar year, the Adminis-*
12 *trator shall, for the calendar year—*

13 (1) *distribute the remaining bonus allowances*
14 *only to qualifying projects that were already quali-*
15 *fying projects during the preceding calendar year;*

16 (2) *distribute the remaining bonus allowances to*
17 *those qualifying projects on a pro rata basis; and*

18 (3) *discontinue the program established under*
19 *this subtitle as of the date on which the Bonus Allow-*
20 *ance Account is projected to be fully used based on*
21 *projects already in operation.*

1 ***Subtitle G—Domestic Agriculture***
 2 ***and Forestry***

3 **SEC. 3701. ALLOCATION.**

4 *Not later than April 1, 2011, and annually thereafter*
 5 *through calendar year 2049, the Administrator shall allo-*
 6 *cate to the Secretary of Agriculture 5 percent of the Emis-*
 7 *sion Allowance Account for the following calendar year for*
 8 *use in—*

9 *(1) achieving real, verifiable, additional, perma-*
 10 *nent, and enforceable reductions in greenhouse gas*
 11 *emissions from the agriculture and forestry sectors of*
 12 *the United States economy; and*

13 *(2) achieving real, verifiable, additional, perma-*
 14 *nent, and enforceable increases in greenhouse gas se-*
 15 *questration from those sectors.*

16 **SEC. 3702. AGRICULTURAL AND FORESTRY GREENHOUSE**
 17 **GAS MANAGEMENT RESEARCH.**

18 *(a) REPORT.—Not later than 1 year after the date of*
 19 *enactment of this Act, the Secretary of Agriculture, in con-*
 20 *sultation with scientific and agricultural and forestry ex-*
 21 *perts, shall prepare and submit to Congress a report that*
 22 *describes the status of research on agricultural and forestry*
 23 *greenhouse gas management, including a description of—*

1 (1) *research on soil carbon sequestration and*
 2 *other agricultural and forestry greenhouse gas man-*
 3 *agement that has been carried out;*

4 (2) *any additional research that is necessary;*

5 (3) *the proposed priority for additional research;*

6 (4) *the most appropriate approaches for con-*
 7 *ducting the additional research; and*

8 (5) *the extent to which and the manner in which*
 9 *carbon credits that are specific to agricultural and*
 10 *forestry operations, including harvested wood prod-*
 11 *ucts and the reduction of hazardous fuels to reduce the*
 12 *risk of uncharacteristically severe wildfires, should be*
 13 *valued and allotted.*

14 (b) *STANDARDIZED SYSTEM OF SOIL CARBON MEAS-*
 15 *UREMENT AND CERTIFICATION FOR THE AGRICULTURAL*
 16 *AND FORESTRY SECTORS.—*

17 (1) *IN GENERAL.—As soon as practicable after*
 18 *the date of enactment of this Act, the Secretary of Ag-*
 19 *riculture shall establish a standardized system of car-*
 20 *bon measurement and certification for the agricul-*
 21 *tural and forestry sectors.*

22 (2) *ADMINISTRATION.—In establishing the sys-*
 23 *tem, the Secretary of Agriculture shall—*

1 (A) create a standardized system of meas-
 2 urements for agricultural and forestry green-
 3 house gases; and

4 (B) delineate the most appropriate system
 5 of certification of credit by public or private en-
 6 tities.

7 (c) *RESEARCH*.—After the date of submission of the re-
 8 port described in paragraph (1), the President and the Sec-
 9 retary of Agriculture (in collaboration with the member in-
 10 stitutions of higher education of the Consortium for Agricul-
 11 tural Soil Mitigation of Greenhouse Gases, institutions of
 12 higher education, and research entities) shall initiate a pro-
 13 gram to conduct any additional research that is necessary.

14 **SEC. 3703. DISTRIBUTION.**

15 (a) *IN GENERAL*.—Taking into account the report pre-
 16 pared under section 3702(a), the Secretary of Agriculture
 17 shall establish, by regulation, a program under which agri-
 18 cultural and forestry allowances may be distributed to enti-
 19 ties that carry out projects on agricultural and forest land
 20 that achieve real, verifiable, additional, permanent, and en-
 21 forceable greenhouse gas emission mitigation benefits.

22 (b) *NITROUS OXIDE AND METHANE*.—The Secretary
 23 of Agriculture shall ensure that, during any 5-year period,
 24 the average annual percentage of the Emission Allowance
 25 Account that is distributed to entities under the program

1 *established under subsection (a) specifically for achieving*
 2 *real, verifiable, additional, permanent, and enforceable re-*
 3 *ductions in nitrous oxide emissions through soil manage-*
 4 *ment or achieving real, verifiable, additional, permanent,*
 5 *and enforceable reductions in methane emissions through*
 6 *enteric fermentation and manure management shall be 0.5*
 7 *percent.*

8 (c) *REQUIREMENT.*—*The Administrator shall dis-*
 9 *tribute emission allowances under this section in a manner*
 10 *that maximizes the avoidance or reduction of greenhouse gas*
 11 *emissions.*

12 ***Subtitle H—International Forest*** 13 ***Protection***

14 ***SEC. 3801. FINDINGS.***

15 *Congress finds that—*

16 (1) *land-use change and forest sector emissions*
 17 *account for approximately 20 percent of global green-*
 18 *house gas emissions;*

19 (2) *land conversion and deforestation are 2 of*
 20 *the largest sources of greenhouse gas emissions in the*
 21 *developing world, amounting to roughly 40 percent of*
 22 *the total greenhouse gas emissions of the developing*
 23 *world;*

1 (3) *with sufficient data, deforestation rates and*
 2 *forest carbon stocks can be measured with an accept-*
 3 *able level of uncertainty; and*

4 (4) *encouraging reduced deforestation and other*
 5 *forest carbon activities in other countries can—*

6 (A) *provide critical leverage to encourage*
 7 *voluntary developing country participation in*
 8 *emission limitation regimes;*

9 (B) *facilitate greater overall reductions in*
 10 *greenhouse gas emissions than would otherwise*
 11 *be practicable; and*

12 (C) *substantially benefit biodiversity, con-*
 13 *servation, and indigenous and other forest-de-*
 14 *pendent people in developing countries.*

15 **SEC. 3802. DEFINITION OF FOREST CARBON ACTIVITIES.**

16 *In this subtitle, the term “forest carbon activities”*
 17 *means—*

18 (1) *activities directed at reducing greenhouse gas*
 19 *emissions from deforestation and forest degradation*
 20 *in countries other than the United States; and*

21 (2) *activities directed at increasing sequestration*
 22 *of carbon through restoration of forests, and degraded*
 23 *land in countries other than the United States that*
 24 *has not been forested prior to restoration,*
 25 *afforestation, and improved forest management, that*

1 *meet the eligibility requirements promulgated under*
2 *section 3804(a).*

3 **SEC. 3803. ALLOCATION.**

4 *Not later than April 1, 2011, and annually thereafter*
5 *through calendar year 2049, the Administrator shall allo-*
6 *cate and distribute 2.5 percent of the Emission Allowance*
7 *Account for the following calendar year for use in carrying*
8 *out forest carbon activities in countries other than the*
9 *United States.*

10 **SEC. 3804. DEFINITION AND ELIGIBILITY REQUIREMENTS.**

11 *(a) ELIGIBILITY REQUIREMENTS FOR FOREST CAR-*
12 *BON ACTIVITIES.—Not later than 2 years after the date of*
13 *enactment of this Act, the Administrator, in consultation*
14 *with the Secretary of the Interior, the Secretary of State,*
15 *and the Secretary of Agriculture, shall promulgate eligi-*
16 *bility requirements for forest carbon activities directed at*
17 *reducing emissions from deforestation and forest degrada-*
18 *tion, and at sequestration of carbon through restoration of*
19 *forests and degraded land, afforestation, and improved for-*
20 *est management in countries other than the United States,*
21 *including requirements that those activities be—*

22 *(1) carried out and managed in accordance with*
23 *widely-accepted environmentally sustainable forestry*
24 *practices; and*

25 *(2) designed—*

1 (A) to promote native species and restora-
 2 tion of native forests, where practicable; and

3 (B) to avoid the introduction of invasive
 4 nonnative species.

5 (b) *QUALITY CRITERIA FOR FOREST CARBON ALLOCA-*
 6 *TIONS.*—Not later than 2 years after the date of enactment
 7 of this Act, the Administrator, in consultation with the Sec-
 8 retary of the Interior, the Secretary of State, and the Sec-
 9 retary of Agriculture, shall promulgate regulations estab-
 10 lishing the requirements for eligibility to receive allowances
 11 under this section, including requirements that ensure that
 12 the emission reductions or sequestrations are real, perma-
 13 nent, additional, verifiable and enforceable, with reliable
 14 measuring and monitoring and appropriate accounting for
 15 leakage.

16 **SEC. 3805. INTERNATIONAL FOREST CARBON ACTIVITIES.**

17 (a) *IN GENERAL.*—The Administrator, in consultation
 18 with the Secretary of State, shall identify and periodically
 19 update a list of countries that have—

20 (1) demonstrated capacity to participate in
 21 international forest carbon activities, including—

22 (A) sufficient historical data on changes in
 23 national forest carbon stocks;

1 (B) *technical capacity to monitor and*
 2 *measure forest carbon fluxes with an acceptable*
 3 *level of uncertainty; and*

4 (C) *institutional capacity to reduce emis-*
 5 *sions from deforestation and degradation;*

6 (2) *capped greenhouse gas emissions or otherwise*
 7 *established a national emission reference scenario*
 8 *based on historical data; and*

9 (3) *commenced an emission reduction program*
 10 *for the forest sector.*

11 (b) *ADDITIONALITY.—*

12 (1) *REDUCTION IN DEFORESTATION AND FOREST*
 13 *DEGRADATION.—A verified reduction in greenhouse*
 14 *gas emissions from deforestation and forest degrada-*
 15 *tion under a cap or from a nationwide emissions ref-*
 16 *erence scenario described in subsection (a) shall be—*

17 (A) *eligible for distribution of emission al-*
 18 *lowances under this section; and*

19 (B) *considered to satisfy the additionality*
 20 *criterion.*

21 (2) *PERIODIC REVIEW OF NATIONAL LEVEL RE-*
 22 *DUCTIONS IN DEFORESTATION AND DEGRADATION.—*
 23 *The Administrator, in consultation with the Sec-*
 24 *retary of State, shall identify and periodically update*

1 *a list of countries described in subsection (a) that*
 2 *have—*

3 *(A) achieved national-level reductions of de-*
 4 *forestation and degradation below a historical*
 5 *reference scenario, taking into consideration the*
 6 *average annual deforestation and degradation*
 7 *rates of the country and of all countries during*
 8 *a period of at least 5 years; and*

9 *(B) demonstrated those reductions using re-*
 10 *mote sensing technology that meets international*
 11 *standards.*

12 *(3) OTHER FOREST CARBON ACTIVITIES.—A for-*
 13 *est carbon activity, other than a reduction in deforest-*
 14 *ation or forest degradation, shall be eligible for dis-*
 15 *tribution of emission allowances under this section,*
 16 *subject to the quality criteria for forest carbon activi-*
 17 *ties identified in this Act or in regulations promul-*
 18 *gated under this Act.*

19 *(c) RECOGNITION OF FOREST CARBON ACTIVITIES.—*
 20 *With respect to countries other than countries described in*
 21 *subsection (a), the Administrator—*

22 *(1) shall recognize forest carbon activities, subject*
 23 *to the quality criteria for forest carbon activities*
 24 *identified in this Act and regulations promulgated*
 25 *under this Act; and*

1 (2) *is encouraged to identify other incentives, in-*
 2 *cluding economic and market-based incentives, to en-*
 3 *courage developing countries with largely-intact na-*
 4 *tive forests to protect those forests.*

5 **SEC. 3806. REVIEWS AND DISCOUNT.**

6 (a) *REVIEWS.*—*Not later than 3 years after the date*
 7 *of enactment of this Act, and 5 years thereafter, the Admin-*
 8 *istrator shall conduct a review of the program under this*
 9 *subtitle.*

10 (b) *DISCOUNT.*—*If, after the date that is 10 years after*
 11 *the date of enactment of this Act, the Administrator deter-*
 12 *mines that foreign countries that, in the aggregate, generate*
 13 *greenhouse gas emissions accounting for more than 0.5 per-*
 14 *cent of global greenhouse gas emissions have not capped*
 15 *those emissions, established emissions reference scenarios*
 16 *based on historical data, or otherwise reduced total forest*
 17 *emissions, the Administrator may apply a discount to dis-*
 18 *tributions of emission allowances to those countries under*
 19 *this section.*

20 ***Subtitle I—Transition Assistance***

21 **SEC. 3901. GENERAL ALLOCATION AND DISTRIBUTION.**

22 (a) *GENERAL ALLOCATION.*—*Not later than April 1,*
 23 *2011, and annually thereafter through January 1, 2029, the*
 24 *Administrator shall allocate percentages of the Emission Al-*
 25 *lowance Account for the following calendar year as follows:*

<i>Calendar Year</i>	<i>Fossil fuel-fired electric power gener- ating fa- cilities</i>	<i>Rural electric coopera- tives</i>	<i>Owners and oper- ators of energy intensive manufac- turing facilities</i>	<i>Facilities that produce or im- port pe- troleum- based fuel</i>	<i>HFC producers and im- porters</i>
2012	19	1	10	2	2
2013	19	1	10	2	2
2014	19	1	10	2	2
2015	19	1	10	2	2
2016	19	1	10	2	2
2017	19	1	10	2	2
2018	18	1	9	2	2
2019	17	1	9	2	2
2020	16	1	8	2	2
2021	14	1	7	2	2
2022	13	1	7	1.75	1.75
2023	12	1	6	1.75	1.75
2024	11	1	5	1.5	1.25
2025	10	1	4	1	1
2026	8	1	3	1	1
2027	6	1	2	0.5	0.5
2028	4	1	1	0.5	0.5
2029	2	1	0.5	0.25	0.25
2030	1	1	0.25	0.25	0.25

1 (b) *GENERAL DISTRIBUTION.*—Not later than 1 year
2 after the date of enactment of this Act, the Administrator
3 shall establish a system for distributing to entities identified
4 under subsection (a) the emission allowances allocated
5 under that subsection.

1 (c) *FACILITIES THAT SHUT DOWN.*—*The system estab-*
 2 *lished pursuant to subsection (b) shall ensure, notwith-*
 3 *standing any other provision of this subtitle, that—*

4 (1) *emission allowances are not distributed to an*
 5 *owner or operator for any facility that has been per-*
 6 *manently shut down at the time of the distribution;*

7 (2) *the owner or operator of any facility that*
 8 *permanently shuts down in a calendar year shall*
 9 *promptly return to the Administrator any emission*
 10 *allowances that the Administrator has distributed for*
 11 *that facility for any subsequent calendar years; and*

12 (3) *that, if a facility receives a distribution of*
 13 *emission allowances under this subtitle for a calendar*
 14 *year and subsequently permanently shuts down dur-*
 15 *ing that calendar year, the owner or operator of the*
 16 *facility shall promptly return to the Administrator a*
 17 *number of emission allowances equal to the number*
 18 *that the Administrator determines is the portion that*
 19 *the owner or operator will no longer need to submit*
 20 *for that facility under section 1202(a).*

21 **SEC. 3902. DISTRIBUTING EMISSION ALLOWANCES TO OWN-**
 22 **ERS AND OPERATORS OF FOSSIL FUEL-FIRED**
 23 **ELECTRIC POWER GENERATING FACILITIES.**

24 (a) *NEW ENTRANTS.*—

1 (1) *IN GENERAL.*—As part of the system estab-
2 lished under section 3901(b), the Administrator shall,
3 for each calendar year, set aside, from the quantity
4 of emission allowances represented by the percentages
5 described in the table contained in section 3901(a) for
6 owners and operators of fossil fuel-fired electric power
7 generating facilities, a quantity of emission allow-
8 ances for distribution to owners and operators of new
9 entrant fossil fuel-fired electric power generating fa-
10 cilities (including such new entrant facilities owned
11 or operated by rural electric cooperatives in any State
12 that is not a participant in the pilot program estab-
13 lished under section 3903(a)).

14 (2) *CALCULATION OF ALLOWANCES.*—The quan-
15 tity of emission allowances distributed by the Admin-
16 istrator for a calendar year to a new entrant fossil
17 fuel-fired electric power generating facility under
18 paragraph (1) shall be equal to the product obtained
19 by multiplying—

20 (A) the average greenhouse gas emission
21 rate of all fossil fuel-fired electric power gener-
22 ating facilities that commenced operations dur-
23 ing the 5 years preceding the date of enactment
24 of this Act; and

1 (B) the electricity generated by the facility
 2 during the calendar year, adjusted downward on
 3 a pro rata basis for each new facility in the
 4 event that insufficient allowances are available
 5 under section 3901(a) for a calendar year.

6 (b) *INCUMBENTS.*—

7 (1) *IN GENERAL.*—As part of the system estab-
 8 lished under section 3901(b), the Administrator shall,
 9 for each calendar year, distribute to fossil fuel-fired
 10 electric power generating facilities (including such fa-
 11 cilities owned or operated by rural electric coopera-
 12 tives in any State that is not a participant in the
 13 pilot program established under section 3903(a)) that
 14 were operating during the calendar year preceding
 15 the year in which this Act was enacted the emission
 16 allowances represented by the percentages described in
 17 the table contained in section 3901(a) for owners and
 18 operators of fossil fuel-fired electric power generating
 19 facilities that remain after the distribution of emis-
 20 sion allowances under subsection (a).

21 (2) *CALCULATION OF ALLOWANCES.*—The quan-
 22 tity of emission allowances distributed to a fossil fuel-
 23 fired electric power generating facility under para-
 24 graph (1) shall be equal to the product obtained by
 25 multiplying—

1 (A) the quantity of emission allowances
 2 available for distribution under paragraph (1);
 3 and

4 (B) the quotient obtained by dividing—

5 (i) the annual average quantity of car-
 6 bon dioxide equivalents emitted by the facil-
 7 ity during the 3 calendar years preceding
 8 the date of enactment of this Act; by

9 (ii) the annual average of the aggregate
 10 quantity of carbon dioxide equivalents emit-
 11 ted by all fossil fuel-fired electric power gen-
 12 erating facilities during those 3 calendar
 13 years.

14 **SEC. 3903. DISTRIBUTING ADDITIONAL EMISSION ALLOW-**
 15 **ANCES TO RURAL ELECTRIC COOPERATIVES.**

16 (a) *ESTABLISHMENT OF PILOT PROGRAM.*—

17 (1) *IN GENERAL.*—As part of the system estab-
 18 lished under section 3901(b), the Administrator shall
 19 establish a pilot program for distributing to rural
 20 electric cooperatives in the States described in para-
 21 graph (2), for each of calendar years 2012 through
 22 2029, 15 percent of the total number of emission al-
 23 lowances allocated for the calendar year to rural elec-
 24 tric cooperatives under section 3901(a).

1 (2) *DESCRIPTION OF STATES.*—*The States re-*
 2 *ferred to in subsection (a) are—*

3 (A) *1 State east of the Mississippi River in*
 4 *which 13 rural electric cooperatives sold to con-*
 5 *sumers in that State electricity in a quantity of*
 6 *9,000,000 to 10,000,000 MWh, according to En-*
 7 *ergy Information Administration data for cal-*
 8 *endar year 2005; and*

9 (B) *1 State west of the Mississippi River in*
 10 *which 30 rural electric cooperatives sold to con-*
 11 *sumers in that State electricity in a quantity of*
 12 *3,000,000 to 4,000,000 MWh, according to En-*
 13 *ergy Information Administration data for cal-*
 14 *endar year 2005.*

15 (b) *DISTRIBUTION TO OTHER STATES.*—*As part of the*
 16 *system established under section 3901(b), the Administrator*
 17 *shall establish a system for distributing to rural electric co-*
 18 *operatives in all States other than the 2 States described*
 19 *in subsection (a)(2), for each of calendar years 2012*
 20 *through 2029, 85 percent of the total number of emission*
 21 *allowances allocated for the calendar year to rural electric*
 22 *cooperatives under section 3901(a), in proportion to the*
 23 *sales of each rural electric cooperative, as reported by the*
 24 *Energy Information Administration.*

1 (c) *LIMITATION.*—No rural electric cooperative that re-
 2 ceives emission allowances under subsection (a) shall receive
 3 any emission allowance under subsection (b), section 3902,
 4 or section 3402.

5 (d) *REPORT.*—Not later than January 1, 2015, and
 6 every 3 years thereafter, the Administrator shall submit to
 7 Congress a report describing the success of the pilot program
 8 established under subsection (a), including a description
 9 of—

10 (1) the benefits realized by ratepayers of the
 11 rural electric cooperatives that receive allowances
 12 under the pilot program; and

13 (2) the use by those rural electric cooperatives of
 14 advanced, low greenhouse gas-emitting electric genera-
 15 tion technologies, if any.

16 **SEC. 3904. DISTRIBUTING EMISSION ALLOWANCES TO OWN-**
 17 **ERS AND OPERATORS OF ENERGY INTENSIVE**
 18 **MANUFACTURING FACILITIES.**

19 (a) *DEFINITIONS.*—In this section:

20 (1) *CURRENTLY OPERATING FACILITY.*—The term
 21 “currently operating facility” means an eligible man-
 22 ufacturing facility that had significant operations
 23 during the calendar year preceding the calendar year
 24 for which emission allowances are being distributed
 25 under this section.

1 (2) *ELIGIBLE MANUFACTURING FACILITY.*—

2 (A) *IN GENERAL.*—*The term “eligible man-*
 3 *ufacturing facility” means a manufacturing fa-*
 4 *cility located in the United States that prin-*
 5 *cipally manufactures iron, steel, aluminum,*
 6 *pulp, paper, cement, chemicals, or such other*
 7 *products as the Administrator may determine,*
 8 *by rule, are likely to be significantly disadvan-*
 9 *taged in competitive international markets as a*
 10 *result of indirect costs of the program established*
 11 *under this Act.*

12 (B) *EXCLUSION.*—*The term “eligible manu-*
 13 *facturing facility” does not include a facility eli-*
 14 *gible to receive emission allowances under section*
 15 *3902, 3903, or 3905.*

16 (3) *INDIRECT CARBON DIOXIDE EMISSIONS.*—*The*
 17 *term “indirect carbon dioxide emissions” means the*
 18 *product obtained by multiplying (as determined by*
 19 *the Administrator)—*

20 (A) *the quantity of electricity consumption*
 21 *at an eligible manufacturing facility; and*

22 (B) *the rate of carbon dioxide emission per*
 23 *kilowatt-hour output for the region in which the*
 24 *manufacturer is located.*

1 (4) *NEW ENTRANT MANUFACTURING FACILITY.*—

2 *The term “new entrant manufacturing facility”, with*
 3 *respect to a calendar year, means an eligible manu-*
 4 *facturing facility that began operation during or after*
 5 *the calendar year for which emission allowances are*
 6 *being distributed under this section.*

7 (b) *TOTAL ALLOCATION FOR CURRENTLY OPERATING*
 8 *FACILITIES.*—*As part of the system established under sec-*
 9 *tion 3901(b), the Administrator shall, for each calendar*
 10 *year, distribute 96 percent of the total quantity of emission*
 11 *allowances available for allocation to carbon-intensive man-*
 12 *ufacturing under section 3901(a) to currently operating fa-*
 13 *cilities.*

14 (c) *TOTAL ALLOCATION FOR CURRENTLY OPERATING*
 15 *FACILITIES IN EACH CATEGORY OF MANUFACTURING FA-*
 16 *CILITIES.*—*The quantity of emission allowances distributed*
 17 *by the Administrator for a calendar year to facilities in*
 18 *each category of currently operating facilities shall be equal*
 19 *to the product obtained by multiplying—*

20 (1) *the total quantity of emission allowances*
 21 *available for allocation under subsection (b); and*

22 (2) *the ratio that (during the calendar year pre-*
 23 *ceding the calendar year for which emission allow-*
 24 *ances are being distributed under this section)—*

1 (A) the sum of the direct and indirect car-
 2 bon dioxide emissions by currently operating fa-
 3 cilities in the category; bears to

4 (B) the sum of the direct and indirect car-
 5 bon dioxide emissions by all currently operating
 6 facilities.

7 (d) *INDIVIDUAL ALLOCATIONS TO CURRENTLY OPER-*
 8 *ATING FACILITIES.*—The quantity of emission allowances
 9 distributed by the Administrator for a calendar year to a
 10 currently operating facility shall be a quantity equal to the
 11 product obtained by multiplying—

12 (1) the total quantity of emission allowances
 13 available for allocation to currently-operating facili-
 14 ties in the appropriate category, as determined under
 15 subsection (c); and

16 (2) the ratio that (during the 3 calendar years
 17 preceding the year for which the allocation rule is
 18 promulgated for the allocation period)—

19 (A) the average number of production em-
 20 ployees employed at the facility; bears to

21 (B) the average number of production em-
 22 ployees employed at all existing eligible manu-
 23 facturing facilities in the appropriate category.

24 (e) *NEW ENTRANT MANUFACTURING FACILITIES.*—

1 (1) *IN GENERAL.*—As part of the system estab-
2 lished under section 3901(b), the Administrator shall,
3 for each calendar year, distribute 4 percent of the
4 total quantity of emission allowances available for al-
5 location to carbon intensive manufacturing under sec-
6 tion 3901(a) to new entrant manufacturing facilities.

7 (2) *INDIVIDUAL ALLOCATIONS.*—The quantity of
8 emission allowances distributed by the Administrator
9 for a calendar year to a new entrant manufacturing
10 facility shall be proportional to the product obtained
11 by multiplying—

12 (A) the average number of production em-
13 ployees employed at the new entrant manufac-
14 turing facility during the prior calendar year;
15 and

16 (B) the rate (in emission allowances per
17 production employee) at which emission allow-
18 ances were allocated to currently operating fa-
19 cilities in the appropriate category for the cal-
20 endar year, as determined under subsection (d).

1 **SEC. 3905. DISTRIBUTING EMISSION ALLOWANCES TO OWN-**
 2 **ERS AND OPERATORS OF FACILITIES AND**
 3 **OTHER ENTITIES THAT PRODUCE OR IMPORT**
 4 **PETROLEUM-BASED FUEL.**

5 (a) *IN GENERAL.*—As part of the system established
 6 under section 3901(b), the Administrator shall, for each cal-
 7 endar year, distribute to facilities or entities that produce
 8 or import petroleum-based fuel the emission allowances rep-
 9 resented by the percentages described in the table contained
 10 in section 3901(a) for owners and operators of facilities or
 11 entities that produce or import petroleum-based fuel.

12 (b) *CALCULATION OF ALLOWANCES.*—The quantity of
 13 emission allowances distributed to a facility or entity under
 14 subsection (a) shall be equal to the product obtained by mul-
 15 tipling—

16 (1) the quantity of emission allowances available
 17 for distribution under subsection (a); and

18 (2) the quotient obtained by dividing—

19 (A) the annual average of the aggregate
 20 quantity of the petroleum-based products pro-
 21 duced or imported by that facility or entity dur-
 22 ing the 3 calendar years preceding the distribu-
 23 tion of allowances; by

24 (B) the annual average of the aggregate
 25 quantity of petroleum-based products produced
 26 or imported by covered facilities and entities

1 that produced or imported petroleum-based fuel
2 during those preceding 3 calendar years.

3 **SEC. 3906. DISTRIBUTING EMISSION ALLOWANCES TO**
4 **HYDROFLUOROCARBON PRODUCERS AND IM-**
5 **PORTERS.**

6 (a) *IN GENERAL.*—The emission allowances allocated
7 to hydrofluorocarbon producers and hydrofluorocarbon im-
8 porters under section 3901(a) shall be distributed to the in-
9 dividual hydrofluorocarbon producers and
10 hydrofluorocarbon importers in accordance with section
11 10005.

12 (b) *EFFECT.*—The distributions under subsection (a)
13 shall not, in any way, limit or otherwise alter the prohibi-
14 tions set forth in subsection 10007(b).

15 **Subtitle J—Reducing Methane**
16 **Emissions From Landfills and**
17 **Coal Mines**

18 **SEC. 3907. ALLOCATION.**

19 Not later than April 1, 2011, and annually thereafter
20 through 2049, the Administrator shall allocate 1 percent of
21 the Emission Allowance Account for the following calendar
22 year to a program for achieving real, verifiable, additional,
23 permanent, and enforceable reductions in emissions of
24 methane from landfills and coal mines.

1 **SEC. 3908. DISTRIBUTION.**

2 (a) *IN GENERAL.*—Not later than 1 year after the date
3 of enactment of this Act, the Administrator shall establish
4 a program that includes a system for distributing to indi-
5 vidual entities the emission allowances allocated under sec-
6 tion 3907.

7 (b) *REQUIREMENT.*—The Administrator shall dis-
8 tribute emission allowances under subsection (a) in a man-
9 ner that maximizes the avoidance or reduction of green-
10 house gas emissions.

11 **TITLE IV—AUCTIONS AND USES**
12 **OF AUCTION PROCEEDS**
13 **Subtitle A—Funds**

14 **SEC. 4101. ESTABLISHMENT.**

15 There are established in the Treasury of the United
16 States the following funds:

17 (1) *The Energy Assistance Fund.*

18 (2) *The Climate Change Worker Training Fund.*

19 (3) *The Adaptation Fund.*

20 (4) *The Climate Change and National Security*
21 *Fund.*

22 (5) *The Bureau of Land Management Emer-*
23 *gency Firefighting Fund.*

24 (6) *The Forest Service Emergency Firefighting*
25 *Fund.*

1 (7) *The Climate Security Act Management*
 2 *Fund.*

3 **SEC. 4102. AMOUNTS IN FUNDS.**

4 *Each Fund established by section 4101 shall consist*
 5 *of such amounts as are deposited into the respective Fund*
 6 *under subtitle C.*

7 ***Subtitle B—Climate Change Credit***
 8 ***Corporation***

9 **SEC. 4201. ESTABLISHMENT.**

10 (a) *IN GENERAL.*—*There is established, as a nonprofit*
 11 *corporation without stock, a corporation to be known as the*
 12 *“Climate Change Credit Corporation”.*

13 (b) *TREATMENT.*—*The Corporation shall not be con-*
 14 *sidered to be an agency or establishment of the Federal Gov-*
 15 *ernment.*

16 **SEC. 4202. APPLICABLE LAWS.**

17 *The Corporation shall be subject to this title and, to*
 18 *the extent consistent with this title, the District of Columbia*
 19 *Business Corporation Act (D.C. Code section 29–301 et*
 20 *seq.).*

21 **SEC. 4203. BOARD OF DIRECTORS.**

22 (a) *IN GENERAL.*—*The Corporation shall have a board*
 23 *of directors composed of 5 individuals who are citizens of*
 24 *the United States, of whom 1 shall be elected annually by*
 25 *the board to serve as Chairperson.*

1 (b) *POLITICAL AFFILIATION.*—Not more than 3 mem-
 2 bers of the board serving at any time may be affiliated with
 3 the same political party.

4 (c) *APPOINTMENT AND TERM.*—A member of the board
 5 shall be appointed by the President, by and with the advice
 6 and consent of the Senate, for a term of 5 years.

7 (d) *QUORUM.*—Three members of the board shall con-
 8 stitute a quorum for a meeting of the board of directors.

9 (e) *PROHIBITIONS.*—

10 (1) *CONFLICTS OF INTEREST.*—An individual
 11 employed by, or holding any official relationship (in-
 12 cluding any shareholder) with, any entity engaged in
 13 the generation, transmission, distribution, or sale of
 14 energy, an individual who has any pecuniary interest
 15 in the generation, transmission, distribution, or sale
 16 of energy, or an individual who has a pecuniary in-
 17 terest in the implementation of this Act, shall not be
 18 appointed to the Corporation under this subtitle.

19 (2) *NO OTHER EMPLOYMENT.*—A member of the
 20 Corporation shall not hold any other employment
 21 during the term of service of the member.

22 (f) *VACANCIES.*—

23 (1) *IN GENERAL.*—A vacancy on the Corpora-
 24 tion—

1 (A) shall not affect the powers of the Cor-
 2 poration; and

3 (B) shall be filled in the same manner as
 4 the original appointment was made.

5 (2) *SERVICE UNTIL NEW APPOINTMENT.*—A
 6 member of the Corporation the term of whom has ex-
 7 pired or otherwise been terminated shall continue to
 8 serve until the date on which a replacement is ap-
 9 pointed if the President determines that service to be
 10 appropriate.

11 (g) *REMOVAL.*—

12 (1) *IN GENERAL.*—A member may be removed
 13 from the Corporation on determination of the Presi-
 14 dent for cause.

15 (2) *NOTIFICATION.*—Not later than 30 days be-
 16 fore removing a member from the Corporation for
 17 cause under paragraph (1), the President shall pro-
 18 vide to Congress an advance notification of the deter-
 19 mination by the President to remove the member.

20 **SEC. 4204. REVIEW AND AUDIT BY COMPTROLLER GENERAL.**

21 Not later than January 1, 2013, and annually there-
 22 after, the Comptroller General of the United States shall
 23 conduct a review and audit of each expenditure made pur-
 24 suant to this title to determine the efficacy of the programs,
 25 expenditures, and projects funded under this title.

Subtitle C—Auctions

SEC. 4301. EARLY AUCTIONS.

(a) *INITIATION OF AUCTIONING.*—Not later than 1 year after the date of enactment of this Act, the Corporation shall begin auctioning the emission allowances allocated to the Corporation under section 3101.

(b) *COMPLETION OF AUCTIONING.*—Not later than December 31, 2010, the Corporation shall complete auctioning of all allowances allocated to the Corporation under section 3101.

(c) *PROCEEDS FROM EARLY AUCTIONING.*—The Corporation shall use to carry out programs established under subtitle D all proceeds of early auctioning conducted by the Corporation under this section.

SEC. 4302. ANNUAL AUCTIONS.

(a) *IN GENERAL.*—Not later than 330 days before the beginning of a calendar year identified in the table contained in section 3102, the Corporation shall auction all of the allowances allocated to the Corporation for that year by the Administrator under section 3102.

(b) *PROCEEDS FROM ANNUAL AUCTIONING.*—

(1) *BUREAU OF LAND MANAGEMENT EMERGENCY FIREFIGHTING FUND.*—For each of calendar years 2012 through 2050, the Corporation shall deposit into the Bureau of Land Management Emergency Fire-

1 *fighting Fund established by section 4101(5) proceeds,*
 2 *from annual auctions that the Corporation conducts*
 3 *for the calendar year under this section, that are suf-*
 4 *ficient to ensure that the amount in the Fund equals*
 5 *\$300,000,000.*

6 (2) *FOREST SERVICE EMERGENCY FIREFIGHTING*
 7 *FUND.—For each of calendar years 2012 through*
 8 *2050, the Corporation shall deposit into the Forest*
 9 *Service Emergency Firefighting Fund established by*
 10 *section 4101(6) proceeds, from annual auctions that*
 11 *the Corporation conducts for the calendar year under*
 12 *this section, that are sufficient to ensure that the*
 13 *amount in the Fund equals \$800,000,000.*

14 (3) *CLIMATE SECURITY ACT MANAGEMENT*
 15 *FUND.—*

16 (A) *IN GENERAL.—For each of calendar*
 17 *years 2012 through 2050, the Corporation shall*
 18 *deposit into the Climate Security Act Manage-*
 19 *ment Fund established by section 4101(7) such*
 20 *percentage of the proceeds of the annual auctions*
 21 *conducted by the Corporation for the calendar*
 22 *year under this section as the Administrator de-*
 23 *termines to be sufficient to efficiently and effec-*
 24 *tively administer this Act.*

1 (B) *DISTRIBUTION.*—*The Administrator*
2 *may distribute funds from the Climate Security*
3 *Act Management Fund to the Secretary of Agri-*
4 *culture, the Secretary of Labor, and the Carbon*
5 *Market Efficiency Board, as the Administrator*
6 *determines to be necessary to assist in carrying*
7 *out this Act.*

8 (C) *USE OF FUNDS.*—*The head of a Federal*
9 *agency or department may use funds from the*
10 *Climate Security Act Management Fund for the*
11 *costs to the agency or department of carrying out*
12 *this Act, including the costs of—*

- 13 (i) *promulgation of regulations;*
14 (ii) *development of policy guidance;*
15 (iii) *development and operation of in-*
16 *formation systems;*
17 (iv) *certification of monitoring equip-*
18 *ment;*
19 (v) *conducting facilities audits and in-*
20 *spections;*
21 (vi) *monitoring and modeling;*
22 (vii) *quality assurance and*
23 *verification functions;*
24 (viii) *enforcement;*
25 (ix) *administration;*

- 1 *(x) outreach;*
- 2 *(xi) training;*
- 3 *(xii) field audits; and*
- 4 *(xiii) financial management.*

5 *(D) TREATMENT.—Amounts in the Climate*
6 *Security Act Management Fund—*

- 7 *(i) shall be used only to advance the*
- 8 *purposes described in section 3;*
- 9 *(ii) are subject to the availability of*
- 10 *appropriations; and*
- 11 *(iii) shall remain available until ex-*
- 12 *pended.*

13 *(4) USE OF REMAINING PROCEEDS.—*

14 *(A) IN GENERAL.—For each of calendar*
15 *years 2012 through 2050, the Corporation shall*
16 *use the proceeds of the annual auctions con-*
17 *ducted by the Corporation for the calendar year*
18 *under this section in accordance with this para-*
19 *graph.*

20 *(B) ENERGY TECHNOLOGY DEPLOYMENT.—*
21 *For each of calendar years 2012 through 2050,*
22 *the Corporation shall use to carry out the pro-*
23 *grams established under subtitle D 52 percent of*
24 *the proceeds of the annual auctions conducted by*

1 *the Corporation for the calendar year under this*
2 *section.*

3 (C) *ENERGY INDEPENDENCE ACCELERATION*
4 *FUND.—In any of calendar years 2012 through*
5 *2050 during which there exists in the Treasury*
6 *of the United States an energy transformation*
7 *acceleration fund administered by the Director of*
8 *the Advanced Research Projects Agency within*
9 *the Department of Energy, of the proceeds of the*
10 *annual auctions conducted by the Corporation*
11 *for the calendar year under this section, the Cor-*
12 *poration shall deposit 2 percent of the proceeds*
13 *into that fund.*

14 (D) *ENERGY CONSUMERS.—For each of cal-*
15 *endar years 2012 through 2050, the Corporation*
16 *shall deposit into the Energy Assistance Fund es-*
17 *tablished by section 4101(1) 18 percent of the*
18 *proceeds of the annual auctions conducted by the*
19 *Corporation for the calendar year under this sec-*
20 *tion.*

21 (E) *CLIMATE CHANGE WORKER TRAINING*
22 *PROGRAM.—For each of calendar years 2012*
23 *through 2050, the Corporation shall deposit into*
24 *the Climate Change Worker Training Fund es-*
25 *tablished by section 4101(2) 5 percent of the pro-*

ceeds of the annual auctions conducted by the Corporation for the calendar year under this section.

(F) ADAPTATION PROGRAM FOR NATURAL RESOURCES IN UNITED STATES AND TERRITORIES.—For each of calendar years 2012 through 2050, the Corporation shall deposit into the Adaptation Fund established by section 4101(3) 18 percent of the proceeds of the annual auctions conducted by the Corporation for the calendar year under this section.

(G) CLIMATE CHANGE AND NATIONAL SECURITY PROGRAM.—For each of calendar years 2012 through 2050, the Corporation shall deposit into the Climate Change and National Security Fund established by section 4101(4) 5 percent of the proceeds of the annual auctions conducted by the Corporation for the calendar year under this section.

Subtitle D—Energy Technology Deployment

SEC. 4401. GENERAL ALLOCATIONS.

For each calendar year, the Corporation shall use the amounts described in sections 4301(c) and 4302(b)(4)(B)

1 *to carry out the programs established under this subtitle,*
 2 *as follows:*

3 (1) *32 percent of the funds shall be used to carry*
 4 *out the zero- or low-carbon energy technologies pro-*
 5 *gram under section 4402.*

6 (2) *25 percent shall be used to carry out the ad-*
 7 *vanced coal and sequestration technologies program*
 8 *under section 4403.*

9 (3) *6 percent shall be used to carry out the fuel*
 10 *from cellulosic biomass program under section 4404.*

11 (4) *12 percent shall be used to carry out the ad-*
 12 *vanced technology vehicles manufacturing incentive*
 13 *program under section 4405.*

14 (5) *25 percent shall be used to carry out the sus-*
 15 *tainable energy program under section 4406.*

16 **SEC. 4402. ZERO- OR LOW-CARBON ENERGY TECHNOLOGIES**
 17 **DEPLOYMENT.**

18 (a) *DEFINITIONS.—In this section:*

19 (1) *ENERGY SAVINGS.—The term “energy sav-*
 20 *ings” means megawatt-hours of electricity or million*
 21 *British thermal units of natural gas saved by a prod-*
 22 *uct, in comparison to projected energy consumption*
 23 *under an energy-efficiency standard applicable to the*
 24 *product.*

1 (2) *ENGINEERING INTEGRATION COSTS.*—The
 2 term “engineering integration costs” includes the costs
 3 of engineering tasks relating to—

4 (A) *redesigning manufacturing processes to*
 5 *begin producing qualifying components and zero-*
 6 *or low-carbon generation technologies;*

7 (B) *designing new tooling and equipment*
 8 *for production facilities that produce qualifying*
 9 *components and zero- or low-carbon generation*
 10 *technologies; and*

11 (C) *establishing or expanding manufac-*
 12 *turing operations for qualifying components and*
 13 *zero- or low-carbon generation technologies.*

14 (3) *HIGH-EFFICIENCY CONSUMER PRODUCT.*—
 15 The term “high-efficiency consumer product” means a
 16 covered product to which an energy conservation
 17 standard applies under section 325 of the Energy Pol-
 18 icy and Conservation Act (42 U.S.C. 6295), if the en-
 19 ergy efficiency of the product exceeds the energy effi-
 20 ciency required under the standard.

21 (4) *QUALIFYING COMPONENT.*—The term “quali-
 22 fying component” means a component that the Sec-
 23 retary of Energy determines to be specially designed
 24 for zero- or low-carbon generation technology.

1 (5) *ZERO- OR LOW-CARBON GENERATION.*—*The*
 2 *term “zero- or low-carbon generation” means genera-*
 3 *tion of electricity by an electric generation unit*
 4 *that—*

5 *(A) emits no carbon dioxide into the atmos-*
 6 *phere, or is fossil-fuel fired and emits into the at-*
 7 *mosphere not more than 250 pounds of carbon*
 8 *dioxide per megawatt-hour (after adjustment for*
 9 *any carbon dioxide from the unit that is geologi-*
 10 *cally sequestered); and*

11 *(B) was placed into commercial service*
 12 *after the date of enactment of this Act.*

13 (6) *ZERO- OR LOW-CARBON GENERATION TECH-*
 14 *NOLOGY.*—*The term “zero- or low-carbon generation*
 15 *technology” means a technology used to create zero- or*
 16 *low-carbon generation.*

17 (b) *FINANCIAL INCENTIVES PROGRAM.*—*During each*
 18 *fiscal year beginning on or after October 1, 2008, the Cor-*
 19 *poration shall competitively award financial incentives*
 20 *under this subsection in the technology categories of—*

21 (1) *the production of electricity from new zero-*
 22 *or low-carbon generation;*

23 (2) *the manufacture of high-efficiency consumer*
 24 *products; and*

(3) *facility establishment or conversion by manufacturers and component suppliers of zero- or low-carbon technology.*

(c) *REQUIREMENTS.—*

(1) *IN GENERAL.—The Corporation shall make awards under this section to domestic producers of new zero- or low-carbon generation, domestic manufacturers of high-efficiency consumer products, and domestic facilities and operations of manufacturers and component suppliers of zero- or low-carbon generation technology—*

(A) *in the case of producers of new zero- or low-carbon generation, based on the bid of each producer in terms of dollars per megawatt-hour of electricity generated;*

(B) *in the case of manufacturers of qualifying high-efficiency consumer products, based on the bid of each manufacturer in terms of dollars per megawatt-hour or million British thermal units saved; and*

(C) *in the case of qualifying manufacturers of zero- or low-carbon generation technology, based on the criteria noted in subsection (e).*

(2) *ACCEPTANCE OF BIDS.—*

1 (A) *IN GENERAL.*—*In making awards*
 2 *under subparagraphs (A) and (B) of paragraph*
 3 *(1), the Corporation shall—*

4 (i) *solicit bids for reverse auction from*
 5 *appropriate producers and manufacturers,*
 6 *as determined by the Corporation; and*

7 (ii) *award financial incentives to the*
 8 *producers and manufacturers that submit*
 9 *the lowest bids that meet the requirements*
 10 *established by the Corporation.*

11 (B) *FACTORS FOR CONVERSION.*—

12 (i) *IN GENERAL.*—*For the purpose of*
 13 *assessing bids under subparagraph (A), the*
 14 *Corporation shall specify a factor for con-*
 15 *verting megawatt-hours of electricity and*
 16 *million British thermal units of natural gas*
 17 *to common units.*

18 (ii) *REQUIREMENT.*—*The conversion*
 19 *factor shall be based on the relative green-*
 20 *house gas emission benefits of electricity*
 21 *and natural gas conservation.*

22 (d) *FORMS OF AWARDS.*—

23 (1) *ZERO- AND LOW-CARBON GENERATORS.*—*An*
 24 *award for zero- or low-carbon generation under this*
 25 *subsection shall be in the form of a contract to pro-*

1 *vide a production payment for each year during the*
 2 *first 10 years of commercial service of the generation*
 3 *unit in an amount equal to the product obtained by*
 4 *multiplying—*

5 *(A) the amount bid by the producer of the*
 6 *zero- or low-carbon generation; and*

7 *(B) the megawatt-hours estimated to be gen-*
 8 *erated by the zero- or low-carbon generation unit*
 9 *each year.*

10 *(2) HIGH-EFFICIENCY CONSUMER PRODUCTS.—*
 11 *An award for a high-efficiency consumer product*
 12 *under this subsection shall be in the form of a lump*
 13 *sum payment in an amount equal to the product ob-*
 14 *tained by multiplying—*

15 *(A) the amount bid by the manufacturer of*
 16 *the high-efficiency consumer product; and*

17 *(B) the energy savings during the projected*
 18 *useful life of the high-efficiency consumer prod-*
 19 *uct, not to exceed 10 years, as determined by the*
 20 *Corporation.*

21 *(3) MANUFACTURING OF ZERO- OR LOW-CARBON*
 22 *GENERATION TECHNOLOGY.—*

23 *(A) IN GENERAL.—An award for facility es-*
 24 *tablishment or conversion costs for zero- or low-*
 25 *carbon generation technology shall be in an*

1 *amount equal to not more than 30 percent of the*
2 *cost of—*

3 *(i) establishing, reequipping, or ex-*
4 *panding a manufacturing facility to*
5 *produce—*

6 *(I) qualifying zero- or low-carbon*
7 *generation technology; or*

8 *(II) qualifying components;*

9 *(ii) engineering integration costs of*
10 *zero- or low-carbon generation technology*
11 *and qualifying components; and*

12 *(iii) property, machine tools, and other*
13 *equipment acquired or constructed pri-*
14 *marily to enable the recipient to test equip-*
15 *ment necessary for the construction or oper-*
16 *ation of a zero- or low-carbon generation fa-*
17 *cility.*

18 *(B) MINIMUM AMOUNT.—The Corporation*
19 *shall use not less than 1/4 of the amounts made*
20 *available to carry out this section to make*
21 *awards to entities for the manufacturing of zero-*
22 *or low-carbon generation technology.*

23 *(e) SELECTION CRITERIA.—In making awards under*
24 *this section to qualifying manufacturers of zero- or low-car-*

1 *bon generation technology and qualifying components, the*
 2 *Corporation shall select manufacturers that—*

3 *(1) document the greatest use of domestically*
 4 *sourced parts and components;*

5 *(2) return to productive service existing idle*
 6 *manufacturing capacity;*

7 *(3) are located in States with the greatest avail-*
 8 *ability of unemployed manufacturing workers;*

9 *(4) compensate workers at a minimum amount*
 10 *equal to at least 100 percent of the State average*
 11 *manufacturing wage, plus health insurance benefits;*

12 *(5) demonstrate a high probability of commercial*
 13 *success; and*

14 *(6) achieve other criteria, as the Corporation de-*
 15 *termines to be appropriate.*

16 **SEC. 4403. ADVANCED COAL AND SEQUESTRATION TECH-**
 17 **NOLOGIES PROGRAM.**

18 *(a) ADVANCED COAL TECHNOLOGIES.—*

19 *(1) DEFINITIONS.—In this section:*

20 *(A) ADVANCED COAL GENERATION TECH-*
 21 *NOLOGY.—Except as provided in paragraph (2),*
 22 *the term “advanced coal generation technology”*
 23 *means an advanced coal-fueled power plant tech-*
 24 *nology that meets 1 of the following performance*
 25 *standards for limiting carbon dioxide emissions*

1 *from an electric generation unit on an annual*
2 *average basis, as determined by the Corporation:*

3 *(i) For an electric generation unit that*
4 *is not a new entrant, an annual emissions*
5 *rate of not more than 1,200 pounds of car-*
6 *bon dioxide per megawatt-hour of net elec-*
7 *tricity generation, after subtracting the car-*
8 *bon dioxide that is captured and seques-*
9 *tered.*

10 *(ii) For any project for which con-*
11 *struction of the unit commenced before July*
12 *1, 2018, an annual emissions rate of not*
13 *more than 800 pounds of carbon dioxide per*
14 *megawatt-hour of net electricity generation,*
15 *after subtracting the carbon dioxide that is*
16 *captured and sequestered.*

17 *(iii) For any project for which con-*
18 *struction of the unit commenced on or after*
19 *July 1, 2018, an annual emissions rate of*
20 *not more than 350 pounds of carbon dioxide*
21 *per megawatt-hour of net electricity genera-*
22 *tion, after subtracting the carbon dioxide*
23 *that is captured and sequestered.*

1 (B) *COMMENCED.*—*The term “commenced”,*
 2 *with respect to construction, means that an*
 3 *owner or operator has—*

4 (i) *obtained the necessary permits to*
 5 *carry out a continuous program of con-*
 6 *struction; and*

7 (ii) *entered into a binding contractual*
 8 *obligation, with substantial financial pen-*
 9 *alties for cancellation, to undertake such a*
 10 *program.*

11 (C) *CONSTRUCTION.*—*The term “construc-*
 12 *tion”, with respect to a carbon capture and se-*
 13 *questration project, means the fabrication, erec-*
 14 *tion, or installation of technology for the project.*

15 (2) *ADJUSTMENT OF PERFORMANCE STAND-*
 16 *ARDS.*—

17 (A) *IN GENERAL.*—*The Corporation may*
 18 *adjust the emissions performance standards for a*
 19 *carbon capture and sequestration project under*
 20 *paragraph (1)(A) for an electric generation unit*
 21 *that uses subbituminous coal, lignite, or petro-*
 22 *leum coke in significant amounts.*

23 (B) *REQUIREMENT.*—*If the Corporation ad-*
 24 *justs a standard under subparagraph (A), the*
 25 *adjusted performance standard for the applicable*

1 *project shall prescribe an annual emissions rate*
 2 *that requires the project to achieve an equivalent*
 3 *reduction from uncontrolled carbon dioxide emis-*
 4 *sions levels from the use of subbituminous coal,*
 5 *lignite, or petroleum coke, as compared to the*
 6 *emissions the project would have achieved if that*
 7 *unit had combusted only bituminous coal during*
 8 *the particular calendar year.*

9 (3) *DEMONSTRATION PROJECTS.—*

10 (A) *IN GENERAL.—The Corporation shall*
 11 *use not less than $\frac{1}{4}$ of the amounts made avail-*
 12 *able to carry out this section for each fiscal year*
 13 *to support demonstration projects using ad-*
 14 *vanced coal generation technology, including ret-*
 15 *rofit technology that could be deployed on exist-*
 16 *ing coal generation facilities.*

17 (B) *CERTAIN PROJECTS.—Of the amounts*
 18 *described in subparagraph (A), the Corporation*
 19 *shall make available up to 25 percent for projects*
 20 *that meet the carbon dioxide emissions perform-*
 21 *ance standard under clause (i) of paragraph*
 22 *(1)(A).*

23 (4) *DEPLOYMENT INCENTIVES.—*

24 (A) *IN GENERAL.—The Corporation shall*
 25 *use not less than $\frac{1}{4}$ of the amounts made avail-*

1 *able to carry out this section for each fiscal year*
2 *to provide financial incentives to facilitate the*
3 *deployment of not more than 20 gigawatts of ad-*
4 *vanced coal generation technologies.*

5 *(B) ADMINISTRATION.—In providing incen-*
6 *tives under this paragraph, the Corporation*
7 *shall—*

8 *(i) provide appropriate incentives for*
9 *regulated investor-owned utilities, munic-*
10 *ipal utilities, electric cooperatives, and*
11 *independent power producers, as determined*
12 *by the Secretary of Energy; and*

13 *(ii) ensure that a range of the domestic*
14 *coal types is employed in the facilities that*
15 *receive incentives under this paragraph.*

16 *(C) FUNDING REQUIREMENTS.—*

17 *(i) SEQUESTRATION ACTIVITIES.—The*
18 *Corporation shall provide incentives only to*
19 *projects that meet 1 of the emission per-*
20 *formance standards for limiting carbon di-*
21 *oxide under clause (ii) or (iii) of paragraph*
22 *(1)(A).*

23 *(ii) PROJECTS USING CERTAIN*
24 *COALS.—In providing incentives under this*
25 *paragraph, the Corporation shall set aside*

1 *not less than 25 percent of any amounts*
 2 *made available to carry out this subsection*
 3 *for projects using coal with an energy con-*
 4 *tent of not more than 10,000 British ther-*
 5 *mal units per pound.*

6 (5) *STORAGE AGREEMENT REQUIRED.*—*The Cor-*
 7 *poration shall require a binding storage agreement for*
 8 *the carbon dioxide captured in a project under this*
 9 *subsection in a geological storage project permitted by*
 10 *the Administrator under regulations promulgated*
 11 *pursuant to section 1421(d) of the Safe Drinking*
 12 *Water Act (42 U.S.C. 300h(d)).*

13 (6) *DISTRIBUTION OF FUNDS.*—

14 (A) *REQUIREMENT.*—*The Corporation shall*
 15 *make awards under this section in a manner*
 16 *that maximizes the avoidance or reduction of*
 17 *greenhouse gas emissions.*

18 (B) *INCENTIVES.*—*A project that receives an*
 19 *award under this subsection may elect 1 of the*
 20 *following financial incentives:*

21 (i) *A loan guarantee.*

22 (ii) *A cost-sharing grant to cover the*
 23 *incremental cost of installing and operating*
 24 *carbon capture and storage equipment (for*

1 *which utilization costs may be covered for*
 2 *the first 10 years of operation).*

3 *(iii) Production payments of not more*
 4 *than 1.5 cents per kilowatt-hour of electric*
 5 *output during the first 10 years of commer-*
 6 *cial service of the project.*

7 *(7) LIMITATION.—A project may not receive an*
 8 *award under this subsection if the project receives an*
 9 *award under section 4402.*

10 *(b) SEQUESTRATION.—*

11 *(1) IN GENERAL.—The Corporation shall use not*
 12 *less than 1/2 of the amounts made available to carry*
 13 *out this section for each fiscal year for large-scale geo-*
 14 *logical carbon storage demonstration projects that*
 15 *store carbon dioxide captured from electric generation*
 16 *units using coal gasification or other advanced coal*
 17 *combustion processes, including units that receive as-*
 18 *sistance under subsection (a).*

19 *(2) PROJECT CAPITAL AND OPERATING COSTS.—*

20 *(A) IN GENERAL.—The Corporation shall*
 21 *provide assistance under this subsection to reim-*
 22 *burse the project owner for a percentage of the*
 23 *incremental project capital and operating costs*
 24 *of the project that are attributable to carbon cap-*

1 *ture and sequestration, as the Secretary deter-*
 2 *mines to be appropriate.*

3 *(B) CERTAIN PROJECTS.—Of the assistance*
 4 *provided under subparagraph (A), the Corpora-*
 5 *tion shall make available up to 25 percent for*
 6 *projects that meet the carbon dioxide emissions*
 7 *performance standard under subsection*
 8 *(a)(1)(A)(i).*

9 **SEC. 4404. FUEL FROM CELLULOSIC BIOMASS.**

10 *(a) IN GENERAL.—The Corporation shall provide de-*
 11 *ployment incentives under this section to encourage a vari-*
 12 *ety of projects to domestically produce transportation fuels*
 13 *from cellulosic biomass, relying on different feedstocks in*
 14 *different regions of the United States.*

15 *(b) PROJECT ELIGIBILITY.—Incentives under this sec-*
 16 *tion shall be provided on a competitive basis to projects that*
 17 *domestically produce fuels that—*

18 *(1) meet United States fuel and emission speci-*
 19 *fications;*

20 *(2) help diversify domestic transportation energy*
 21 *supplies; and*

22 *(3) improve or maintain air, water, soil, and*
 23 *habitat quality, and protect scarce water supplies.*

24 *(c) INCENTIVES.—Incentives under this section may*
 25 *consist of—*

1 (1) *loan guarantees for the construction of pro-*
 2 *duction facilities and supporting infrastructure; or*

3 (2) *production payments through a reverse auc-*
 4 *tion in accordance with subsection (d).*

5 (d) *REVERSE AUCTION.*—

6 (1) *IN GENERAL.*—*In providing incentives under*
 7 *this section, the Corporation shall—*

8 (A) *prescribe rules under which producers of*
 9 *fuel from cellulosic biomass may bid for produc-*
 10 *tion payments under subsection (c)(2); and*

11 (B) *solicit bids from producers of different*
 12 *classes of transportation fuel, as the Corporation*
 13 *determines to be appropriate.*

14 (2) *REQUIREMENT.*—*The rules under section*
 15 *4402 shall require that incentives shall be provided to*
 16 *the producers that submit the lowest bid (in terms of*
 17 *cents per gallon gasoline equivalent) for each class of*
 18 *transportation fuel from which the Corporation solic-*
 19 *its a bid.*

20 **SEC. 4405. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**
 21 **TURING INCENTIVE PROGRAM.**

22 (a) *DEFINITIONS.*—*In this section:*

23 (1) *ADVANCED TECHNOLOGY VEHICLE.*—*The*
 24 *term “advanced technology vehicle” means an electric*
 25 *vehicle, a fuel cell-powered vehicle, a hybrid or plug-*

1 *in hybrid electric vehicle, or an advanced diesel light*
 2 *duty motor vehicle, that meets—*

3 *(A) the Tier II Bin 5 emission standard es-*
 4 *tablished in rules prescribed by the Adminis-*
 5 *trator under section 202(i) of the Clean Air Act*
 6 *(42 U.S.C. 7521(i)), or a lower-numbered Bin*
 7 *emission standard;*

8 *(B) any new emission standard for fine*
 9 *particulate matter prescribed by the Adminis-*
 10 *trator under that Act; and*

11 *(C) standard of at least 125 percent of the*
 12 *average base year combined fuel economy, cal-*
 13 *culated on an energy-equivalent basis for vehicles*
 14 *other than advanced diesel light-duty motor vehi-*
 15 *cles, for vehicles of a substantially similar nature*
 16 *and footprint.*

17 *(2) COMBINED FUEL ECONOMY.—The term “com-*
 18 *bined fuel economy” means—*

19 *(A) the combined city-highway miles per*
 20 *gallon values, as reported in accordance with sec-*
 21 *tion 32908 of title 49, United States Code; and*

22 *(B) in the case of an electric drive vehicle*
 23 *with the ability to recharge from an off-board*
 24 *source, the reported mileage, as determined in a*
 25 *manner consistent with the Society of Auto-*

1 *motive Engineers recommended practice for that*
 2 *configuration, or a similar practice rec-*
 3 *ommended by the Secretary of Energy, using a*
 4 *petroleum equivalence factor for the off-board*
 5 *electricity (as defined by the Secretary of En-*
 6 *ergy).*

7 (3) *ENGINEERING INTEGRATION COSTS.—The*
 8 *term “engineering integration costs” includes the cost*
 9 *of engineering tasks performed in the United States*
 10 *relating to—*

11 (A) *incorporating qualifying components*
 12 *into the design of advanced technology vehicles;*
 13 *and*

14 (B) *designing new tooling and equipment*
 15 *for production facilities that produce in the*
 16 *United States qualifying components or ad-*
 17 *vanced technology vehicles.*

18 (4) *QUALIFYING COMPONENT.—The term “quali-*
 19 *fying component” means a component that the Sec-*
 20 *retary of Energy determines to be—*

21 (A) *specially designed for advanced tech-*
 22 *nology vehicles;*

23 (B) *installed for the purpose of meeting the*
 24 *performance requirements of advanced technology*

1 *vehicles as specified in subparagraphs (A), (B),*
 2 *and (C) of paragraph (1); and*
 3 *(C) manufactured in the United States.*

4 (b) *MANUFACTURER FACILITY CONVERSION*
 5 *AWARDS.—The Corporation shall provide facility conver-*
 6 *sion funding awards under this subsection to automobile*
 7 *manufacturers and component suppliers to pay up to 30*
 8 *percent of the cost of—*

9 (1) *reequipping or expanding an existing manu-*
 10 *facturing facility to produce—*

11 *(A) qualifying advanced technology vehicles;*

12 *or*

13 *(B) qualifying components; and*

14 (2) *engineering integration of qualifying vehicles*
 15 *and qualifying components.*

16 (c) *PERIOD OF AVAILABILITY.—An award under sub-*
 17 *section (b) shall apply to—*

18 (1) *facilities and equipment placed in service*
 19 *after the date of enactment of this Act and before Jan-*
 20 *uary 1, 2030; and*

21 (2) *engineering integration costs incurred after*
 22 *the date of enactment of this Act.*

23 (d) *ADDITIONAL LIMITATIONS.—*

1 (1) *MAXIMUM AMOUNT.*—*The maximum amount*
 2 *of all awards under this section shall not exceed*
 3 *\$40,000,000,000.*

4 (2) *CAFE REQUIREMENTS.*—*The Corporation*
 5 *shall not make an award under this section to an*
 6 *automobile manufacturer or component supplier that,*
 7 *directly or through a parent, subsidiary, or affiliated*
 8 *entity, is not in compliance with each corporate aver-*
 9 *age fuel economy standard under section 32902 of*
 10 *title 49, United States Code, in effect on the date of*
 11 *the award.*

12 (e) *ADDITIONAL REQUIREMENTS.*—

13 (1) *DEFINITION OF RECIPIENT.*—*In this sub-*
 14 *section, the term “recipient” means the automobile*
 15 *manufacturer or component supplier (including any*
 16 *parent, subsidiary, and affiliated entities) that re-*
 17 *ceives an award under this section.*

18 (2) *CERTIFICATION.*—*To be eligible for an award*
 19 *under this section, an automobile manufacturer or*
 20 *component supplier (including any parent, sub-*
 21 *sidary, and affiliated entities) shall certify to the*
 22 *Corporation that, for each of the 7 calendar years fol-*
 23 *lowing the receipt of the award, the manufacturer or*
 24 *supplier will maintain in the United States a num-*
 25 *ber of full-time or full-time-equivalent employees—*

1 (A) equal to 90 percent of the monthly aver-
2 age number of full-time or full-time-equivalent
3 employees maintained by the manufacturer or
4 supplier for the 12-month period ending on the
5 date of receipt of the award;

6 (B) sufficient to ensure that the proportion
7 that the workforce of the manufacturer or sup-
8 plier in the United States bears to the global
9 workforce of the manufacturer or supplier is
10 equal to or greater than the average monthly
11 proportion that the workforce of the manufac-
12 turer or supplier in the United States bears to
13 the global workforce of the manufacturer or sup-
14 plier for the 12-month period ending on the date
15 of receipt of the award; or

16 (C) sufficient to ensure that any percentage
17 decrease in the hourly workforce of the manufac-
18 turer or supplier in the United States is not
19 greater than aggregate of the percentage decrease
20 in the market share of the manufacturer or sup-
21 plier in the United States and the increase in
22 the productivity of the manufacturer or supplier,
23 calculated during the period beginning on the
24 date of receipt of the award and ending on the
25 date of certification under this subparagraph.

1 (3) *RECERTIFICATION.*—Not later than 1 year
 2 after the date of receipt of an award under this sec-
 3 tion, and annually thereafter, a manufacturer or sup-
 4 plier shall—

5 (A) recertify to the Corporation that, during
 6 the preceding calendar year, the manufacturer or
 7 supplier has achieved compliance with the re-
 8 quirement described in paragraph (2); and

9 (B) provide to the Corporation sufficient
 10 data for verification of the recertification.

11 (4) *REPAYMENT.*—A manufacturer or supplier
 12 that fails to make the recertification required by
 13 paragraph (3) shall pay to the Corporation an
 14 amount equal to the difference between—

15 (A) the amount of the original award to the
 16 manufacturer or supplier; and

17 (B) the product obtained by multiplying—

18 (i) an amount equal to $\frac{1}{7}$ of that
 19 original amount; and

20 (ii) the number of years during which
 21 the manufacturer or supplier—

22 (I) received an award under this
 23 section; and

24 (II) made the certification re-
 25 quired by paragraph (3).

1 **SEC. 4406. SUSTAINABLE ENERGY PROGRAM.**

2 (a) *DEFINITION OF SUSTAINABLE ENERGY TECH-*
3 *NOLOGY.*—*In this section, the term “sustainable energy*
4 *technology” means a technology to harness a renewable en-*
5 *ergy source (as defined in section 609(a) of the Public Util-*
6 *ity Regulatory Policies Act of 1978 (7 U.S.C. 918c(a)), in-*
7 *cluding in distributed energy systems.*

8 (b) *DEMONSTRATION PROJECTS.*—*The Corporation*
9 *shall use not less than 25 percent of the amounts made*
10 *available to carry out this section for each fiscal year to*
11 *support demonstration projects in the United States using*
12 *sustainable energy technology, including in distributed en-*
13 *ergy systems.*

14 (c) *DEPLOYMENT INCENTIVES.*—

15 (1) *IN GENERAL.*—*The Corporation shall use not*
16 *less than 25 percent of the amounts made available to*
17 *carry out this section for each fiscal year to provide*
18 *Federal financial incentives to facilitate the deploy-*
19 *ment in the United States of sustainable energy tech-*
20 *nology, including in distributed energy systems.*

21 (2) *ADMINISTRATION.*—*In providing incentives*
22 *under this subsection, the Corporation shall provide*
23 *appropriate incentives for regulated investor-owned*
24 *utilities, municipal utilities, electric cooperatives,*
25 *independent power producers, and consumers, as de-*
26 *termined by the Secretary of Energy.*

1 (d) *DISTRIBUTION OF FUNDS.*—A project that receives
 2 an award under this subsection may elect 1 of the following
 3 Federal financial incentives:

4 (1) *A loan guarantee.*

5 (2) *A cost-sharing grant to cover the incremental*
 6 *cost of installing and operating equipment (for which*
 7 *utilization costs may be covered for the first 10 years*
 8 *of operation).*

9 (3) *Production payments of not more than 1.5*
 10 *cents per kilowatt-hour of electric output during the*
 11 *first 10 years of commercial service of the project.*

12 (e) *LIMITATION.*—A project may not receive an award
 13 under this subsection if the project receives an award under
 14 section 4402.

15 ***Subtitle E—Energy Consumers***

16 ***SEC. 4501. PROPORTIONS OF FUNDING AVAILABILITY.***

17 *All funds deposited into the Energy Assistance Fund*
 18 *established by section 4101(1) shall be made available, with-*
 19 *out further appropriation or fiscal year limitation, to the*
 20 *following programs in the following proportions:*

21 (1) *50 percent of the funds to the low-income*
 22 *home energy assistance program established under the*
 23 *Low Income Home Energy Assistance Act of 1981 (42*
 24 *U.S.C. 8621 et seq.).*

1 (2) 25 percent of the funds to the Weatherization
 2 Assistance Program for Low-Income Persons estab-
 3 lished under part A of title IV of the Energy Con-
 4 servation and Production Act (42 U.S.C. 6861 et
 5 seq.).

6 (3) 25 percent of the funds to the rural energy
 7 assistance program described in section 4502.

8 **SEC. 4502. RURAL ENERGY ASSISTANCE PROGRAM.**

9 The Secretary of Energy shall carry out a program
 10 to use the funds made available under section 4501(3) to
 11 provide financial assistance to promote the availability of
 12 reasonably-priced distributed electricity in off-grid rural re-
 13 gions in which electricity prices exceed 150 percent of the
 14 national average, as determined by the Secretary of Energy.

15 **Subtitle F—Climate Change Worker**
 16 **Training Program**

17 **SEC. 4601. FUNDING.**

18 All funds deposited into the Climate Change Worker
 19 Training Fund established by section 4101(2) shall be made
 20 available, without further appropriation or fiscal year limi-
 21 tation, to carry out the programs established under this sub-
 22 title.

23 **SEC. 4602. PURPOSES.**

24 The purposes of this subtitle are—

1 (1) *to create a sustainable, comprehensive public*
 2 *program that provides quality training that is linked*
 3 *to jobs that are created through low-carbon energy,*
 4 *sustainable energy, and energy efficiency initiatives;*

5 (2) *to satisfy industry demand for a skilled*
 6 *workforce, support economic growth, boost the global*
 7 *competitiveness of the United States in expanding*
 8 *low-carbon energy, sustainable energy, and energy ef-*
 9 *iciency industries, and provide economic self-suffi-*
 10 *ciency and family-sustaining jobs for United States*
 11 *workers, including low-wage workers, through quality*
 12 *training and placement in job opportunities in those*
 13 *industries; and*

14 (3) *to provide funds for Federal and State indus-*
 15 *try-wide research, labor market information and*
 16 *labor exchange programs, and the development of*
 17 *Federal- and State-administered training programs.*

18 **SEC. 4603. ESTABLISHMENT.**

19 *Not later than 180 days after the date of enactment*
 20 *of this Act, the Secretary of Labor (referred to in this sub-*
 21 *title as the “Secretary”), in consultation with the Adminis-*
 22 *trator and the Secretary of Energy, shall establish a climate*
 23 *change worker training program that achieves the purposes*
 24 *of this subtitle.*

1 **SEC. 4604. ACTIVITIES.**

2 (a) *NATIONAL RESEARCH PROGRAM.*—Under the pro-
3 gram established under section 4603, the Secretary, acting
4 through the Bureau of Labor Statistics, shall provide assist-
5 ance to support national research to develop labor market
6 data and to track future workforce trends resulting from
7 energy-related initiatives carried out under this section, in-
8 cluding—

9 (1) *linking research and development in low-car-*
10 *bon energy, sustainable energy, and energy efficiency*
11 *technology with the development of standards and*
12 *curricula for current and future jobs;*

13 (2) *the tracking and documentation of academic*
14 *and occupational competencies and future skill needs*
15 *with respect to low-carbon energy, sustainable energy,*
16 *and energy efficiency technology;*

17 (3) *tracking and documentation of occupational*
18 *information and workforce training data with respect*
19 *to low-carbon energy, sustainable energy, and energy*
20 *efficiency technology;*

21 (4) *assessing new employment and work prac-*
22 *tices, including career ladder and upgrade training*
23 *and high-performance work systems; and*

24 (5) *collaborating with State agencies, industry,*
25 *organized labor, and community and nonprofit orga-*
26 *nizations to disseminate successful innovations for*

1 *labor market services and worker training with re-*
 2 *spect to low-carbon energy, sustainable energy, and*
 3 *energy efficiency technology.*

4 (b) *NATIONAL ENERGY TRAINING PARTNERSHIP*
 5 *GRANTS.—*

6 (1) *GRANTS.—*

7 (A) *IN GENERAL.—Under the program es-*
 8 *tablished under section 4603, the Secretary shall*
 9 *award national energy training partnerships*
 10 *grants on a competitive basis to eligible entities*
 11 *to enable the entities—*

12 (i) *to carry out national training that*
 13 *leads to economic self-sufficiency; and*

14 (ii) *to develop a low-carbon energy,*
 15 *sustainable energy, and energy efficiency*
 16 *industries workforce.*

17 (B) *DIVERSITY.—Grants shall be awarded*
 18 *under this paragraph so as to ensure geographic*
 19 *diversity, with—*

20 (i) *at least 2 grants awarded to enti-*
 21 *ties located in each of the 4 Petroleum Ad-*
 22 *ministration for Defense Districts with no*
 23 *subdistricts; and*

24 (ii) *at least 1 grant awarded to an en-*
 25 *tity located in each of the subdistricts of the*

1 *Petroleum Administration for Defense Dis-*
2 *trict with subdistricts.*

3 (2) *ELIGIBILITY.*—*To be eligible to receive a*
4 *grant under paragraph (1), an entity shall be a non-*
5 *profit partnership that—*

6 (A) *includes the equal participation of in-*
7 *dustry, including public or private employers,*
8 *and labor organizations, including joint labor-*
9 *management training programs, and may in-*
10 *clude community-based organizations, edu-*
11 *cational institutions, small businesses, coopera-*
12 *tives, State and local veterans agencies, and vet-*
13 *erans service organizations; and*

14 (B) *demonstrates—*

15 (i) *experience in implementing and op-*
16 *erating worker skills training and edu-*
17 *cation programs;*

18 (ii) *the ability to identify and involve*
19 *in training programs carried out using the*
20 *grant, target populations of workers that*
21 *are or will be engaged in activities relating*
22 *to low-carbon energy, sustainable energy,*
23 *and energy efficiency industries; and*

24 (iii) *the ability to help workers achieve*
25 *economic self-sufficiency.*

1 (3) *ACTIVITIES.*—Activities to be carried out
 2 using a grant provided under this subsection may in-
 3 clude—

4 (A) the provision of occupational skills
 5 training, including curriculum development, on-
 6 the-job training, and classroom training;

7 (B) the provision of safety and health train-
 8 ing;

9 (C) the provision of basic skills, literacy,
 10 general equivalency degree, English as a second
 11 language, and job readiness training;

12 (D) individual referral and tuition assist-
 13 ance for a community college training program;

14 (E) the provision of customized training in
 15 conjunction with an existing registered appren-
 16 ticeship program or labor-management partner-
 17 ship;

18 (F) the provision of career ladder and up-
 19 grade training; and

20 (G) the implementation of transitional jobs
 21 strategies.

22 (c) *STATE LABOR MARKET RESEARCH, INFORMATION,*
 23 *AND LABOR EXCHANGE RESEARCH PROGRAM.*—

24 (1) *IN GENERAL.*—Under the program estab-
 25 lished under section 4603, the Secretary shall award

1 *competitive grants to States to enable the States to*
 2 *administer labor market and labor exchange informa-*
 3 *tional programs that include the implementation of*
 4 *the activities described in paragraph (2).*

5 (2) *ACTIVITIES.*—A State shall use amounts
 6 *awarded under this subsection to provide funding to*
 7 *the State agency that administers the Wagner-Peyser*
 8 *Act (29 U.S.C. 49 et seq.) and State unemployment*
 9 *compensation programs to carry out the following ac-*
 10 *tivities using State agency merit staff:*

11 (A) *The identification of job openings in the*
 12 *low-carbon energy, sustainable energy, and en-*
 13 *ergy efficiency sector.*

14 (B) *The administration of skill and apti-*
 15 *tude testing and assessment for workers.*

16 (C) *The counseling, case management, and*
 17 *referral of qualified job seekers to openings and*
 18 *training programs, including low-carbon energy,*
 19 *sustainable energy, and energy efficiency train-*
 20 *ing programs.*

21 (d) *STATE ENERGY TRAINING PARTNERSHIP PRO-*
 22 *GRAM.*—

23 (1) *IN GENERAL.*—Under the program estab-
 24 *lished under section 4603, the Secretary shall award*
 25 *competitive grants to States to enable the States to*

1 *administer low-carbon energy, sustainable energy,*
 2 *and energy efficiency workforce development programs*
 3 *that include the implementation of the activities de-*
 4 *scribed in paragraph (2).*

5 (2) *ACTIVITIES.—*

6 (A) *IN GENERAL.—A State shall use*
 7 *amounts awarded under the subsection to award*
 8 *competitive grants to eligible State energy sector*
 9 *partnerships to enable the partnerships to co-*
 10 *ordinate with existing apprenticeship and labor*
 11 *management training programs and implement*
 12 *training programs that lead to the economic self-*
 13 *sufficiency of trainees.*

14 (B) *ELIGIBILITY.—To be eligible to receive*
 15 *a grant under this subsection, a State energy sec-*
 16 *tor partnership shall—*

17 (i) *consist of nonprofit organizations*
 18 *that include equal participation from in-*
 19 *dustry, including public or private non-*
 20 *profit employers, and labor organizations,*
 21 *including joint labor-management training*
 22 *programs, and may include representatives*
 23 *from local governments, worker investment*
 24 *agency one-stop career centers, community*
 25 *based organizations, community colleges,*

1 *other post-secondary institutions, small*
 2 *businesses, cooperatives, State and local vet-*
 3 *erans agencies, and veterans service organi-*
 4 *zations;*

5 *(ii) demonstrate experience in imple-*
 6 *menting and operating worker skills train-*
 7 *ing and education programs; and*

8 *(iii) demonstrate the ability to identify*
 9 *and involve in training programs, target*
 10 *populations of workers that are or will be*
 11 *engaged in activities relating to low-carbon*
 12 *energy, sustainable energy, and energy effi-*
 13 *ciency industries.*

14 *(C) PRIORITY.—In awarding grants under*
 15 *this subsection, the Secretary shall give priority*
 16 *to States that demonstrate linkages of activities*
 17 *under the grant with—*

18 *(i) meeting national energy policies as-*
 19 *sociated with low-carbon energy, sustainable*
 20 *energy, and energy efficiency; and*

21 *(ii) meeting State energy policies asso-*
 22 *ciated with low-carbon energy, sustainable*
 23 *energy, and energy efficiency.*

24 *(D) COORDINATION.—An entity that re-*
 25 *ceives a grant under this subsection shall—*

1 (i) coordinate activities carried out
2 under the grant with existing apprentice-
3 ship and labor management training pro-
4 grams; and

5 (ii) implement training programs that
6 lead to the economic self-sufficiency of
7 trainees, including providing—

8 (I) outreach and recruitment serv-
9 ices, in coordination with the appro-
10 priate State agency;

11 (II) occupational skills training,
12 including curriculum development, on-
13 the-job training, and classroom train-
14 ing;

15 (III) safety and health training;

16 (IV) basic skills, literacy, general
17 equivalency degree, English as a second
18 language, and job readiness training;

19 (V) individual referral and tui-
20 tion assistance for a community college
21 training program;

22 (VI) customized training in con-
23 junction with an existing registered
24 apprenticeship program or labor-man-
25 agement partnership;

1 (VII) career ladder and upgrade
 2 training; and
 3 (VIII) services under transitional
 4 jobs strategies.

5 **SEC. 4605. WORKER PROTECTIONS AND NONDISCRIMINA-**
 6 **TION REQUIREMENTS.**

7 (a) *APPLICABILITY OF WIA.*—Sections 181 and 188
 8 of the Workforce Investment Act of 1998 (29 U.S.C. 2931,
 9 2938) shall apply to all programs carried out using assist-
 10 ance under this subtitle.

11 (b) *CONSULTATION WITH LABOR ORGANIZATIONS.*—If
 12 a labor organization represents a substantial number of
 13 workers that are engaged in similar work or training in
 14 an area that is the same as the area that is proposed to
 15 be funded under this subtitle, the labor organization shall
 16 be provided an opportunity to be consulted and to submit
 17 comments in regard to such a proposal.

18 **SEC. 4606. WORKFORCE TRAINING AND SAFETY.**

19 (a) *UNIVERSITY PROGRAMS.*—In order to enhance the
 20 educational opportunities and safety of a future generation
 21 of scientists, engineers, health physicists, and energy work-
 22 force employees, 25 percent of the funds deposited into the
 23 Climate Change Worker Training Fund shall be used for
 24 the University Programs within the Department of Energy,
 25 to help United States university and colleges stay at the

1 *forefront of science education and research and assist uni-*
 2 *versities in the operation of advanced energy research facili-*
 3 *ties and in the performance of other educational activities.*

4 **(b) EMPLOYEE ORGANIZATIONS.**—*The Secretary shall*
 5 *provide technical assistance and funds for training directly*
 6 *to nonprofit employee organizations, voluntary emergency*
 7 *response organizations, and joint labor-management orga-*
 8 *nizations that demonstrate experience in implementing and*
 9 *operating worker health and safety training and education*
 10 *programs.*

11 **(c) WORKFORCE TRAINING.**—

12 **(1) IN GENERAL.**—*The Secretary of Labor, in co-*
 13 *operation with the Secretary of Energy, shall promul-*
 14 *gate regulations—*

15 **(A)** *to implement a program to provide*
 16 *workforce training to meet the high demand for*
 17 *workers skilled in zero- and low-emitting carbon*
 18 *energy technologies and provide for related safety*
 19 *issues;*

20 **(B)** *to implement a fully validated electrical*
 21 *craft certification program, career and tech-*
 22 *nology awareness at the primary and secondary*
 23 *education level, preapprenticeship career tech-*
 24 *nical education for all zero- and low-emitting*
 25 *carbon energy technologies related industrial*

1 *skilled crafts, community college and skill center*
 2 *training for zero- and low-emitting carbon en-*
 3 *ergy technology technicians, development of con-*
 4 *struction management personnel for zero- and*
 5 *low-emitting carbon energy technology construc-*
 6 *tion projects and regional grants for integrated*
 7 *zero- and low-emitting carbon energy technology*
 8 *workforce development programs; and*

9 *(C) to ensure the safety of workers in such*
 10 *careers.*

11 *(2) CONSULTATION.—In carrying out this sub-*
 12 *section, the Secretary of Labor shall consult with rel-*
 13 *evant Federal agencies, representatives of the zero-*
 14 *and low-emitting carbon energy technologies indus-*
 15 *tries, and organized labor, concerning skills and such*
 16 *safety measures that are needed in those industries.*

17 *(d) QUANTIFICATION.—For purposes of dispersing*
 18 *funds under this section, qualifying zero- and low-emitting*
 19 *carbon energy means any technology that has a rated ca-*
 20 *capacity of at least 750 megawatts of power.*

21 ***Subtitle G—Adaptation Program***
 22 ***for Natural Resources in United***
 23 ***States and Territories***

24 ***SEC. 4701. DEFINITIONS.***

25 *In this subtitle:*

1 (1) *ECOLOGICAL PROCESS*.—

2 (A) *IN GENERAL*.—The term “ecological
3 process” means a biological, chemical, or phys-
4 ical interaction between the biotic and abiotic
5 components of an ecosystem.

6 (B) *INCLUSIONS*.—The term “ecological
7 process” includes—

- 8 (i) nutrient cycling;
- 9 (ii) pollination;
- 10 (iii) predator-prey relationships;
- 11 (iv) soil formation;
- 12 (v) gene flow;
- 13 (vi) larval dispersal and settlement;
- 14 (vii) hydrological cycling;
- 15 (viii) decomposition; and
- 16 (ix) disturbance regimes, such as fire
17 and flooding.

18 (2) *FISH AND WILDLIFE*.—The term “fish and
19 wildlife” means—

20 (A) any species of wild fauna, including
21 fish and other aquatic species; and

22 (B) any fauna in a captive breeding pro-
23 gram the object of which is to reintroduce indi-
24 viduals of a depleted indigenous species into pre-
25 viously occupied range.

1 (3) *HABITAT*.—The term “habitat” means the
 2 physical, chemical, and biological properties that are
 3 used by wildlife (including aquatic and terrestrial
 4 plant communities) for growth, reproduction, and
 5 survival, food, water, cover, and space, on a tract of
 6 land, in a body of water, or in an area or region.

7 (4) *INDIAN TRIBE*.—The term “Indian tribe” has
 8 the meaning given the term in section 4 of the Indian
 9 Self-Determination and Education Assistance Act (25
 10 U.S.C. 450b).

11 (5) *PLANT*.—The term “plant” means any spe-
 12 cies of wild flora.

13 (6) *SECRETARY*.—The term “Secretary” means
 14 the Secretary of the Interior.

15 (7) *STATE*.—The term “State” means—
 16 (A) a State;
 17 (B) the District of Columbia;
 18 (C) the Commonwealth of Puerto Rico; and
 19 (D) any other territory or possession of the
 20 United States.

21 **SEC. 4702. ADAPTATION FUND.**

22 (a) *AVAILABILITY OF AMOUNTS*.—All amounts depos-
 23 ited in the Adaptation Fund established by section 4101(3)
 24 shall be made available, without further appropriation or
 25 fiscal year limitation, to carry out activities (including re-

1 *search and education activities) that assist fish and wild-*
 2 *life, fish and wildlife habitat, plants, and associated ecologi-*
 3 *cal processes in becoming more resilient, adapting to, and*
 4 *surviving the impacts of climate change and ocean acidifi-*
 5 *cation (referred to in this section as “adaptation activi-*
 6 *ties”) pursuant to this section.*

7 *(b) DEPARTMENT OF THE INTERIOR.—Of the amounts*
 8 *made available annually to carry out this subsection—*

9 *(1) 35 percent shall be allocated to the Secretary,*
 10 *and subsequently made available to States through the*
 11 *Wildlife Conservation and Restoration Account estab-*
 12 *lished under section 3(a)(2) of the Pittman-Robertson*
 13 *Wildlife Restoration Act (16 U.S.C. 669b(a)(2)), to*
 14 *carry out adaptation activities in accordance with*
 15 *comprehensive State adaptation strategies, as de-*
 16 *scribed in subsection (j);*

17 *(2) 19 percent shall be allocated to the Secretary*
 18 *for use in funding adaptation activities carried out—*

19 *(A) under endangered species, migratory*
 20 *bird, and other fish and wildlife programs ad-*
 21 *ministered by the United States Fish and Wild-*
 22 *life Service;*

23 *(B) on wildlife refuges and other public*
 24 *land under the jurisdiction of the United States*

1 *Fish and Wildlife Service, the Bureau of Land*
2 *Management, or the National Park Service; or*

3 *(C) within Federal water managed by the*
4 *Bureau of Reclamation;*

5 *(3) 5 percent shall be allocated to the Secretary*
6 *for adaptation activities carried out under coopera-*
7 *tive grant programs, including—*

8 *(A) the cooperative endangered species con-*
9 *servation fund authorized under section 6(i) of*
10 *the Endangered Species Act of 1973 (16 U.S.C.*
11 *1535(i));*

12 *(B) programs under the North American*
13 *Wetlands Conservation Act (16 U.S.C. 4401 et*
14 *seq.);*

15 *(C) the multinational species conservation*
16 *fund established under the heading “MULTI-*
17 *NATIONAL SPECIES CONSERVATION FUND” of title*
18 *I of the Department of the Interior and Related*
19 *Agencies Appropriations Act, 1999 (16 U.S.C.*
20 *4246);*

21 *(D) the Neotropical Migratory Bird Con-*
22 *servation Fund established by section 9(a) of the*
23 *Neotropical Migratory Bird Conservation Act*
24 *(16 U.S.C. 6108(a));*

1 (E) the Coastal Program of the United
2 States Fish and Wildlife Service;

3 (F) the National Fish Habitat Action Plan;

4 (G) the Partners for Fish and Wildlife Pro-
5 gram;

6 (H) the Landowner Incentive Program;

7 (I) the Wildlife Without Borders Program of
8 the United States Fish and Wildlife Service; and

9 (J) the Park Flight Migratory Bird Pro-
10 gram of the National Park Service; and

11 (4) 1 percent shall be allocated to the Secretary
12 and subsequently made available to Indian tribes to
13 carry out adaptation activities through the tribal
14 wildlife grants program of the United States Fish and
15 Wildlife Service.

16 (c) LAND AND WATER CONSERVATION FUND.—

17 (1) DEPOSITS.—

18 (A) IN GENERAL.—Except as provided in
19 paragraph (2), of the amounts made available
20 for each fiscal year to carry out this subsection,
21 10 percent shall be deposited into the Land and
22 Water Conservation Fund established under sec-
23 tion 2 of the Land and Water Conservation
24 Fund Act of 1965 (16 U.S.C. 460l–5).

1 (B) *Deposits to the Land and Water Con-*
 2 *servation Fund under this subsection shall—*

3 (i) *be supplemental to authorizations*
 4 *provided under section 3 of the Land and*
 5 *Water Conservation Fund Act of 1965 (16*
 6 *U.S.C. 460l–6); and*

7 (ii) *remain available for non-adapta-*
 8 *tion needs.*

9 (2) *EXCEPTION.—For any fiscal year in which*
 10 *a deposit into the Land and Water Conservation*
 11 *Fund under paragraph (1) would result in an*
 12 *amount greater than \$900,000,000—*

13 (A) *\$900,000,000 shall be deposited into the*
 14 *Land and Water Conservation Fund; and*

15 (B) *the remaining funds shall be distributed*
 16 *on a pro rata basis as otherwise provided in this*
 17 *section.*

18 (3) *ALLOCATIONS.—Of the amounts deposited*
 19 *under this subsection into the Land and Water Con-*
 20 *servation Fund—*

21 (A) *1/6 shall be allocated to the Secretary*
 22 *and made available to carry out section 6 of the*
 23 *Land and Water Conservation Fund Act of 1965*
 24 *(16 U.S.C. 460l–8) to States, on a competitive*
 25 *basis—*

1 (i) *in accordance with comprehensive*
2 *wildlife conservation strategies and Indian*
3 *tribes, to carry out adaptation activities*
4 *through the acquisition of land and inter-*
5 *ests in land;*

6 (ii) *notwithstanding section 5 of that*
7 *Act (16 U.S.C. 460l–7); and*

8 (iii) *in addition to grants provided*
9 *pursuant to—*

10 (I) *annual appropriations Acts;*

11 (II) *the Energy Policy Act of*
12 *2005 (42 U.S.C. 15801 et seq.); or*

13 (III) *any other authorization for*
14 *nonadaptation needs;*

15 (B) $\frac{1}{3}$ *shall be allocated to the Secretary to*
16 *carry out adaptation activities through the ac-*
17 *quisition of lands and interests in land under*
18 *section 7 of the Land and Water Conservation*
19 *Fund Act of 1965 (16 U.S.C. 460l–9);*

20 (C) $\frac{1}{6}$ *shall be allocated to the Secretary of*
21 *Agriculture and made available to the States to*
22 *carry out adaptation activities through the ac-*
23 *quisition of land and interests in land under sec-*
24 *tion 7 of the Forest Legacy Program under the*

1 *Cooperative Forestry Assistance Act of 1978 (16*
2 *U.S.C. 2103c); and*

3 *(D) $\frac{1}{3}$ shall be allocated to the Secretary of*
4 *Agriculture to carry out adaptation activities*
5 *through the acquisition of land and interests in*
6 *land under section 7 of the Land and Water*
7 *Conservation Fund Act of 1965 (16 U.S.C. 460l–*
8 *9).*

9 *(4) EXPENDITURE OF FUNDS.—In allocating*
10 *funds under subsection (c), the Secretary and the Sec-*
11 *retary of Agriculture shall take into consideration fac-*
12 *tors including—*

13 *(A) the availability of non-Federal con-*
14 *tributions from State, local, or private sources;*

15 *(B) opportunities to protect wildlife cor-*
16 *ridors or otherwise to link or consolidate frag-*
17 *mented habitats;*

18 *(C) opportunities to reduce the risk of cata-*
19 *strophic wildfires, extreme flooding, or other cli-*
20 *mate-related events that are harmful to fish and*
21 *wildlife and people;*

22 *(D) the potential for conservation of species*
23 *or habitat types at serious risk due to climate*
24 *change, ocean acidification, and other stressors;*
25 *and*

1 (E) the potential to provide enhanced access
 2 to land and water for fishing, hunting, and other
 3 public recreational uses.

4 (d) *FOREST SERVICE*.—Of the amounts made avail-
 5 able annually to carry out this section, 5 percent shall be
 6 allocated to the Secretary of Agriculture for use in funding
 7 adaptation activities carried out on national forests and
 8 national grasslands under the jurisdiction of the Forest
 9 Service, or pursuant to the cooperative Wings Across the
 10 Americas Program.

11 (e) *ENVIRONMENTAL PROTECTION AGENCY*.—Of the
 12 amounts made available annually to carry out this section,
 13 5 percent shall be allocated to the Administrator for use
 14 in adaptation activities restoring and protecting—

15 (1) large-scale freshwater aquatic ecosystems,
 16 such as the Everglades, the Great Lakes, Flathead
 17 Lake, the Missouri River, the Mississippi River, the
 18 Colorado River, the Sacramento-San Joaquin Rivers,
 19 the Ohio River, the Columbia-Snake River System,
 20 the Apalachicola, Chattahoochee and Flint River Sys-
 21 tem, the Connecticut River, and the Yellowstone
 22 River;

23 (2) large-scale estuarine ecosystems, such as
 24 Chesapeake Bay, Long Island Sound, Puget Sound,
 25 the Mississippi River Delta , San Francisco Bay

1 *Delta, Narragansett Bay, and Albemarle-Pamlico*
 2 *Sound; and*

3 *(3) freshwater and estuarine ecosystems, water-*
 4 *sheds, and basins identified as priorities by the Ad-*
 5 *ministrator, working in cooperation with other Fed-*
 6 *eral agencies, States, local governments, scientists,*
 7 *and other conservation partners.*

8 *(f) CORPS OF ENGINEERS.—Of the amounts made*
 9 *available annually to carry out this section, 10 percent*
 10 *shall be allocated to the Secretary of the Army for use by*
 11 *the Corps of Engineers to carry out adaptation activities*
 12 *restoring—*

13 *(1) large-scale freshwater aquatic ecosystems,*
 14 *such as the ecosystems described in subsection (e)(1);*

15 *(2) large-scale estuarine ecosystems, such as the*
 16 *ecosystems described in subsection (e)(2);*

17 *(3) freshwater and estuarine ecosystems, water-*
 18 *sheds, and basins identified as priorities by the Corps*
 19 *of Engineers, working in cooperation with other Fed-*
 20 *eral agencies, States, local governments, scientists,*
 21 *and other conservation partners; and*

22 *(4) habitats or ecosystems under programs such*
 23 *as the Estuary Restoration Act of 2000 (33 U.S.C.*
 24 *2901 et seq.), project modifications for improvement*
 25 *of the environment, and aquatic restoration under*

1 *section 206 of the Water Resources Development Act*
2 *of 1996 (33 U.S.C. 2330).*

3 *(g) DEPARTMENT OF COMMERCE.—Of the amounts*
4 *made available annually to carry out this section, 10 per-*
5 *cent shall be allocated to the Secretary of Commerce for use*
6 *in funding adaptation activities to protect, maintain, and*
7 *restore coastal, estuarine, and marine resources, habitats,*
8 *and ecosystems, including such activities carried out*
9 *under—*

10 *(1) the coastal and estuarine land conservation*
11 *program;*

12 *(2) the community-based restoration program;*

13 *(3) the Coastal Zone Management Act of 1972*
14 *(16 U.S.C. 1451 et seq.), subject to the condition that*
15 *State coastal agencies shall incorporate, and the Sec-*
16 *retary of Commerce shall approve, coastal zone man-*
17 *agement plan elements that are—*

18 *(A) consistent with the national adaptation*
19 *strategy under subsection (i), as part of a coastal*
20 *zone management program established under this*
21 *Act; and*

22 *(B) specifically designed to strengthen the*
23 *ability of coastal, estuarine, and marine re-*
24 *sources, habitats, and ecosystems to adapt to and*
25 *withstand the impacts of—*

1 (i) *global warming; and*

2 (ii) *where practicable, ocean acidifica-*
3 *tion;*

4 (4) *the Open Rivers Initiative;*

5 (5) *the Magnuson Fishery Conservation and*
6 *Management Act (16 U.S.C. 1801 et seq.);*

7 (6) *the Marine Mammal Protection Act of 1972*
8 *(16 U.S.C. 1361 et seq.);*

9 (7) *the Endangered Species Act of 1973 (16*
10 *U.S.C. 1531 et seq.);*

11 (8) *the Marine Protection, Research, and Sanc-*
12 *tuaries Act of 1972 (33 U.S.C. 1401 et seq.); and*

13 (9) *the Coral Reef Conservation Act of 2000 (16*
14 *U.S.C. 6401 et seq.).*

15 (h) *COST SHARING.*—*Notwithstanding any other pro-*
16 *vision of law, a State or Indian tribe that receives a grant*
17 *under paragraph (1) or (4) of subsection (b) shall provide*
18 *10 percent of the costs of each activity carried out using*
19 *amounts under the grant.*

20 (i) *NATIONAL ADAPTATION STRATEGY.*—

21 (1) *IN GENERAL.*—*Effective beginning on the*
22 *date on which the President establishes the national*
23 *strategy under paragraph (3), funds made available*
24 *under paragraphs (2), (3), and (4) of subsection (b)*
25 *and subsections (c) through (g) shall be used only for*

1 *adaptation activities that are consistent with the na-*
2 *tional strategy.*

3 (2) *INITIAL PERIOD.*—*Until the date on which*
4 *the President establishes the national strategy under*
5 *paragraph (3), funds made available under para-*
6 *graphs (2), (3), and (4) of subsection (b) and sub-*
7 *sections (c) through (g) shall be used only for adapta-*
8 *tion activities that are consistent with a workplan es-*
9 *tablished by the President.*

10 (3) *NATIONAL STRATEGY.*—

11 (A) *IN GENERAL.*—*Not later than 3 years*
12 *after the date of enactment of this Act, the Presi-*
13 *dent shall develop and implement a national*
14 *strategy for assisting fish and wildlife, fish and*
15 *wildlife habitat, plants, and associated ecological*
16 *processes in becoming more resilient and adapt-*
17 *ing to the impacts of climate change and ocean*
18 *acidification.*

19 (B) *ADMINISTRATION.*—*In establishing and*
20 *revising the national strategy, the President*
21 *shall—*

22 (i) *base the national strategy on the*
23 *best available science, as identified by the*
24 *Science Advisory Board established under*
25 *subparagraph (D);*

1 (ii) develop the national strategy in co-
2 operation with State fish and wildlife agen-
3 cies, State coastal agencies, United States
4 territories, and Indian tribes;

5 (iii) coordinate with the Secretary of
6 the Interior, the Secretary of Commerce, the
7 Secretary of Agriculture, the Secretary of
8 Defense, the Administrator of the Environ-
9 mental Protection Agency, and other agen-
10 cies as appropriate;

11 (iv) consult with local governments,
12 conservation organizations, scientists, and
13 other interested stakeholders; and

14 (v) provide public notice and oppor-
15 tunity for comment.

16 (C) CONTENTS.—The President shall in-
17 clude in the national strategy, at a minimum,
18 prioritized goals and measures and a schedule
19 for implementation—

20 (i) to identify and monitor fish and
21 wildlife, fish and wildlife habitat, plants,
22 and associated ecological processes that are
23 particularly likely to be adversely affected
24 by climate change and ocean acidification
25 and have the greatest need for conservation;

1 (ii) to identify and monitor coastal, es-
2 tuarine, marine, terrestrial, and freshwater
3 habitats that are at the greatest risk of
4 being damaged by climate change and ocean
5 acidification;

6 (iii) to assist species in adapting to the
7 impacts of climate change and ocean acidi-
8 fication;

9 (iv) to protect, acquire, maintain, and
10 restore fish and wildlife habitat to build re-
11 silience to climate change and ocean acidifi-
12 cation;

13 (v) to provide habitat linkages and cor-
14 ridors to facilitate fish, wildlife, and plant
15 movement in response to climate change
16 and ocean acidification;

17 (vi) to restore and protect ecological
18 processes that sustain fish, wildlife, and
19 plant populations that are vulnerable to cli-
20 mate change and ocean acidification;

21 (vii) to protect, maintain, and restore
22 coastal, marine, and aquatic ecosystems so
23 that the ecosystems are more resilient and
24 better able to withstand the additional
25 stresses associated with climate change, in-

cluding relative sea level rise and ocean acidification;

(viii) to protect ocean and coastal species from the impact of climate change and ocean acidification;

(ix) to incorporate adaptation strategies and activities to address relative sea level rise in coastal zone planning;

(x) to protect, maintain, and restore ocean and coastal habitats to build healthy and resilient ecosystems, including the purchase of coastal and island land; and

(xi) to incorporate consideration of climate change and ocean acidification, and to integrate adaptation strategies and activities for fish and wildlife, fish and wildlife habitat, plants, and associated ecological processes, in the planning and management of Federal land and water administered by the Federal agencies that receive funding under this section.

(D) SCIENCE ADVISORY BOARD.—

(i) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish and ap-

1 *point the members of a science advisory*
 2 *board, to be comprised of not fewer than 10*
 3 *and not more than 20 members, who*
 4 *shall—*

5 *(I) be recommended by the Presi-*
 6 *dent of the National Academy of*
 7 *Sciences;*

8 *(II) have expertise in fish, wild-*
 9 *life, plant, aquatic, and coastal and*
 10 *marine biology, ecology, climate*
 11 *change, ocean acidification, and other*
 12 *relevant scientific disciplines; and*

13 *(III) represent a balanced mem-*
 14 *bership between Federal, State, and*
 15 *local representatives, universities, and*
 16 *conservation organizations.*

17 *(ii) DUTIES.—The science advisory*
 18 *board shall—*

19 *(I) advise the President and rel-*
 20 *evant Federal agencies and depart-*
 21 *ments on—*

22 *(aa) the best available science*
 23 *regarding the impacts of climate*
 24 *change and ocean acidification on*
 25 *fish and wildlife, habitat, plants,*

1 *and associated ecological proc-*
2 *esses; and*

3 *(bb) scientific strategies and*
4 *mechanisms for adaptation; and*

5 *(II) identify and recommend pri-*
6 *orities for ongoing research needs on*
7 *those issues.*

8 *(iii) COLLABORATION.—The science*
9 *advisory board shall collaborate with other*
10 *climate change and ecosystem research enti-*
11 *ties in other Federal agencies and depart-*
12 *ments.*

13 *(iv) AVAILABILITY TO PUBLIC.—The*
14 *advice and recommendations of the science*
15 *advisory board shall be made available to*
16 *the public.*

17 *(v) NONAPPLICABILITY OF FACA.—The*
18 *Federal Advisory Committee Act (5 U.S.C.*
19 *App.) shall not apply to the science advi-*
20 *sory board.*

21 *(E) COORDINATION WITH OTHER PLANS.—*
22 *In developing the national strategy, the Presi-*
23 *dent shall, to the maximum extent practicable—*

24 *(i) take into consideration research*
25 *and information contained in—*

1 (I) *State comprehensive wildlife*
 2 *conservation plans;*

3 (II) *the North American water-*
 4 *fowl management plan;*

5 (III) *the national fish habitat ac-*
 6 *tion plan;*

7 (IV) *coastal zone management*
 8 *plans;*

9 (V) *the reports of the Pew Oceans*
 10 *Commission and the United States*
 11 *Commission on Ocean Policy; and*

12 (VI) *other relevant plans; and*

13 (ii) *coordinate and integrate the goals*
 14 *and measures identified in the national*
 15 *strategy with the goals and measures identi-*
 16 *fied in those plans.*

17 (F) *REVISIONS.*—*Not later than 5 years*
 18 *after the date on which the strategy is developed,*
 19 *and not less frequently than every 5 years there-*
 20 *after, the President shall review and update the*
 21 *national strategy using the procedures described*
 22 *in this paragraph.*

23 (j) *STATE COMPREHENSIVE ADAPTATION STRATE-*
 24 *GIES.*—

1 (1) *IN GENERAL.*—*Except as provided in para-*
 2 *graph (2), funds made available to States under this*
 3 *subtitle shall be used only for activities that are con-*
 4 *sistent with a State strategy that has been approved*
 5 *by, as appropriate—*

6 (A) *the Secretary of the Interior; or*

7 (B) *for any State with a coastal zone (with-*
 8 *in the meaning of the Coastal Zone Management*
 9 *Act (16 U.S.C. 1451 et seq.)), by the Secretary*
 10 *of Commerce, subject to the condition that ap-*
 11 *proval by the Secretary of Commerce shall be re-*
 12 *quired only for those portions of the strategy re-*
 13 *lating to activities affecting the coastal zone.*

14 (2) *INITIAL PERIOD.*—

15 (A) *IN GENERAL.*—*Until the earlier of the*
 16 *date that is 3 years after the date of enactment*
 17 *of this Act or the date on which a State receives*
 18 *approval for the State strategy, a State shall be*
 19 *eligible to receive funding under subsection (b)(1)*
 20 *for adaptation activities that are—*

21 (i) *consistent with the comprehensive*
 22 *wildlife strategy of the State and, where ap-*
 23 *propriate, other fish, wildlife and conserva-*
 24 *tion strategies; and*

(ii) *in accordance with a workplan developed in coordination with, as appropriate—*

(I) the Secretary of the Interior;

or

(II) for any State with a coastal zone (within the meaning of the Coastal Zone Management Act (16 U.S.C. 1451 et seq.)), by the Secretary of Commerce, subject to the condition that approval by the Secretary of Commerce shall be required only for those portions of the strategy relating to activities affecting the coastal zone.

(B) PENDING APPROVAL.—During the period for which approval by the applicable Secretary of a State strategy described in paragraph (3) is pending, the State may continue receiving funds under subsection (b)(1) pursuant to the workplan described subparagraph (A)(ii).

(3) REQUIREMENTS.—A State strategy shall—

(A) describe the impacts of climate change and ocean acidification on the diversity and health of the fish, wildlife and plant populations, habitats, and associated ecological processes;

1 (B) describe and prioritize proposed con-
2 servation actions to assist fish, wildlife, and
3 plant populations in adapting to those impacts;

4 (C) establish programs for monitoring the
5 impacts of climate change on fish, wildlife, and
6 plant populations, habitats, and associated eco-
7 logical processes;

8 (D) include strategies, specific conservation
9 actions, and a timeframe for implementing con-
10 servation actions for fish, wildlife, and plant
11 populations, habitats, and associated ecological
12 processes;

13 (E) establish methods for assessing the effec-
14 tiveness of conservation actions taken to assist
15 fish, wildlife, and plant populations, habitats,
16 and associated ecological processes in adapting
17 to those impacts and for updating those actions
18 to respond appropriately to new information or
19 changing conditions;

20 (F) be developed—

21 (i) with the participation of the State
22 fish and wildlife agency, the State agency
23 responsible for administration of Land and
24 Water Conservation Fund grants, the State

1 *Forest Legacy program coordinator, and the*
 2 *State coastal agency; and*

3 (ii) *in coordination with the Secretary*
 4 *of the Interior and, where applicable, the*
 5 *Secretary of Commerce;*

6 (G) *provide for solicitation and consider-*
 7 *ation of public and independent scientific input;*

8 (H) *take into consideration research and*
 9 *information contained in, and coordinate with*
 10 *and integrate the goals and measures identified*
 11 *in, as appropriate, other fish, wildlife, and habi-*
 12 *tat conservation strategies, including—*

13 (i) *the national fish habitat action*
 14 *plan;*

15 (ii) *plans under the North American*
 16 *Wetlands Conservation Act (16 U.S.C. 4401*
 17 *et seq.);*

18 (iii) *the Federal, State, and local part-*
 19 *nership known as “Partners in Flight”;*

20 (iv) *federally approved coastal zone*
 21 *management plans under the Coastal Zone*
 22 *Management Act of 1972 (16 U.S.C. 1451 et*
 23 *seq.);*

24 (v) *federally approved regional fishery*
 25 *management plans and habitat conservation*

1 *activities under the Magnuson Fishery Con-*
2 *servation and Management Act (16 U.S.C.*
3 *1801 et seq.);*

4 *(vi) the national coral reef action plan;*

5 *(vii) recovery plans for threatened spe-*
6 *cies and endangered species under section*
7 *4(f) of the Endangered Species Act of 1973*
8 *(16 U.S.C. 1533(f));*

9 *(viii) habitat conservation plans under*
10 *section 10 of that Act (16 U.S.C. 1539);*

11 *(ix) other Federal and State plans for*
12 *imperiled species;*

13 *(x) the United States shorebird con-*
14 *servation plan;*

15 *(xi) the North American waterbird*
16 *conservation plan; and*

17 *(xii) other State-based strategies that*
18 *comprehensively implement adaptation ac-*
19 *tivities to remediate the effects of climate*
20 *change and ocean acidification on fish,*
21 *wildlife, and habitats; and*

22 *(I) be incorporated into a revision of the*
23 *comprehensive wildlife conservation strategy of a*
24 *State—*

1 (i) that has been submitted to the
2 United States Fish and Wildlife Service;
3 and

4 (ii)(I) that has been approved by the
5 Service; or

6 (II) on which a decision on approval is
7 pending.

8 (4) *UPDATING.*—Each State strategy described
9 in paragraph (3) shall be updated at least every 5
10 years.

11 ***Subtitle H—International Climate***
12 ***Change Adaptation and Na-***
13 ***tional Security Program***

14 ***SEC. 4801. FINDINGS.***

15 Congress finds that—

16 (1) global climate change represents a potentially
17 significant threat multiplier for instability around
18 the world as changing precipitation patterns may ex-
19 acerbate competition and conflict over agricultural,
20 vegetative, and water resources and displace people,
21 thus increasing hunger and poverty and causing in-
22 creased pressure on least developed countries;

23 (2) the strategic, social, political, and economic
24 consequences of global climate change could have dis-
25 proportionate impacts on least developed countries,

1 *which have fewer resources and thus, often fewer emis-*
 2 *sions;*

3 *(3) the strategic, social, political, and economic*
 4 *consequences of global climate change are likely to*
 5 *have a greater adverse effect on less developed coun-*
 6 *tries;*

7 *(4) the consequences of global climate change*
 8 *could pose a danger to the security interest and eco-*
 9 *nomic interest of the United States; and*

10 *(5) it is in the national security interest of the*
 11 *United States to recognize, plan for, and mitigate the*
 12 *international strategic, social, political, and economic*
 13 *effects of a changing climate.*

14 **SEC. 4802. PURPOSES.**

15 *The purposes of this subtitle are—*

16 *(1) to protect the national security of the United*
 17 *States where such interest can be advanced by mini-*
 18 *mizing, averting, or increasing resilience to poten-*
 19 *tially destabilizing climate change impacts;*

20 *(2) to support the development of national and*
 21 *regional climate change adaptation plans in least de-*
 22 *veloped countries;*

23 *(3) to support the deployment of technologies*
 24 *that would help least developed countries reduce their*

1 *greenhouse gas emissions and respond to destabilizing*
2 *impacts of climate change;*

3 *(4) to provide assistance to least-developed coun-*
4 *tries and small island developing states with national*
5 *or regional climate change adaptation plans in the*
6 *planning, financing, and execution of adaptation*
7 *projects;*

8 *(5) to support investments and capital to reduce*
9 *vulnerability related to climate change and its im-*
10 *pacts, including but not limited to drought, famine,*
11 *floods, sea level rise, shifts in agricultural zones or*
12 *seasons, shifts in range that affect economic liveli-*
13 *hoods, and refugees and internally displaced persons;*

14 *(6) to support climate change adaptation re-*
15 *search in or for least developed countries; and*

16 *(7) to encourage the identification and adoption*
17 *of appropriate low-carbon and efficient energy tech-*
18 *nologies in least-developed countries.*

19 **SEC. 4803. ESTABLISHMENT.**

20 *(a) ESTABLISHMENT OF PROGRAM.—The Secretary of*
21 *State, working with the Administrator of the U.S. Agency*
22 *for International Development (referred to in this subtitle*
23 *as the “Agency”) and the Administrator, shall establish an*
24 *International Climate Change Adaptation and National*
25 *Security Program within the Agency.*

1 (b) *RESPONSIBILITIES OF PROGRAM.—The Program*
2 *shall—*

3 (1) *submit annual reports to the President, the*
4 *Committees on Environment and Public Works and*
5 *Foreign Relations of the Senate, and the Committees*
6 *on Energy and Commerce and Foreign Relations of*
7 *the House of Representatives, and any other relevant*
8 *committees on national security, the economy and for-*
9 *ign policy, that describe—*

10 (A) *the extent to which other countries are*
11 *committing to reducing greenhouse gas emissions*
12 *through mandatory programs;*

13 (B) *the extent to which global climate*
14 *change, through its potential negative impacts on*
15 *sensitive populations and natural resources in*
16 *least developed countries, may threaten, cause, or*
17 *exacerbate political instability or international*
18 *conflict in those regions; and*

19 (C) *the ramifications of any potentially de-*
20 *stabilizing impacts climate change may have on*
21 *the economic and national security of the United*
22 *States, including—*

23 (i) *the creation of refugees; and*

1 (ii) *international or internal armed*
 2 *conflicts over water, food, land, or other re-*
 3 *sources;*

4 (2) *include in each annual report submitted*
 5 *under paragraph (1) a description of how funds made*
 6 *available under section 4804 were spent to enhance*
 7 *the national security of the United States and assist*
 8 *in avoiding the politically destabilizing impacts of*
 9 *climate change in volatile regions of the world, par-*
 10 *ticularly least developed countries; and*

11 (3) *identify and recommend the countries in*
 12 *which assistance can have the greatest and most sus-*
 13 *tainable benefit to reducing vulnerability to climate*
 14 *change, primarily in the form of deploying adapta-*
 15 *tion and greenhouse gas reduction technologies.*

16 **SEC. 4804. FUNDING.**

17 (a) *CARRYING OUT RECOMMENDATIONS.*—*All funds*
 18 *deposited into the Climate Change and National Security*
 19 *Fund established by section 4101(4) shall be made avail-*
 20 *able, without further appropriation or fiscal year limita-*
 21 *tion, to carry out the program established under this sub-*
 22 *title.*

23 (b) *DISTRIBUTION OF FUNDS.*—*The Administrator of*
 24 *the Agency shall distribute to the International Climate*

1 *Change Adaptation and National Security Program the*
2 *funds for the purposes described in section 4802.*

3 (c) *OVERSIGHT.—The Administrator of the Agency*
4 *shall oversee the expenditures by the Program.*

5 (d) *LIMITATIONS.—Not more than 10 percent of*
6 *amounts made available to carry out this subtitle shall be*
7 *spent in any single country in any year.*

8 ***Subtitle I—Emergency Firefighting***
9 ***Programs***

10 ***SEC. 4901. FINDINGS.***

11 *Congress finds that—*

12 (1) *since 1980, wildfires in the United States*
13 *have burned almost twice as many acres per year on*
14 *average than the average burned acreage during the*
15 *period beginning on January 1, 1920, and ending on*
16 *December 31, 1979;*

17 (2) *the wildfire season in the western United*
18 *States has increased by an average of 78 days during*
19 *the 30-year period preceding the date of enactment of*
20 *this Act;*

21 (3) *researchers predict that the area subject to*
22 *wildfire damage will increase during the 21st century*
23 *by up to 118 percent as a result of climate change;*

1 (4) of the annual budget of the Forest Service,
 2 the Forest Service used for wildfire suppression ac-
 3 tivities—

4 (A) 13 percent in 1991; and

5 (B) 45 percent in 2007; and

6 (5) 1 percent of the largest escaped fires—

7 (A) burn 95 percent of all burned acres; and

8 (B) consume 85 percent of all wildfire fight-
 9 ing costs.

10 **SEC. 4902. BUREAU OF LAND MANAGEMENT EMERGENCY**
 11 **FIREFIGHTING PROGRAM.**

12 (a) *USE OF FUNDS.*—The amounts deposited into the
 13 Bureau of Land Management Emergency Firefighting
 14 Fund established by section 4101(5) shall be made avail-
 15 able, without further appropriation or fiscal year limita-
 16 tion, to pay for wildland fire suppression activities the costs
 17 of which are in excess of amounts annually appropriated
 18 to the Secretary of the Interior for normal, nonemergency
 19 wildland fire suppression activities.

20 (b) *ACCOUNTING AND REPORTING.*—

21 (1) *IN GENERAL.*—Not later than 3 years after
 22 the date of enactment of this Act, the Secretary of the
 23 Interior shall establish an accounting and reporting
 24 system, in accordance and compatible with National

1 *Fire Plan reporting procedures, for the activities car-*
 2 *ried out under this section.*

3 (2) *REQUIREMENT.*—*The system established*
 4 *under paragraph (1) shall require that the Secretary*
 5 *of the Interior shall submit to the Committee on Nat-*
 6 *ural Resources of the House of Representatives and*
 7 *the Committee on Energy and Natural Resources of*
 8 *the Senate—*

9 (A) *a monthly report describing each ex-*
 10 *penditure made from the Bureau of Land Man-*
 11 *agement Emergency Firefighting Fund during*
 12 *the preceding month; and*

13 (B) *a report at the end of each fiscal year*
 14 *describing the expenditures made from the Bu-*
 15 *reau of Land Management Emergency Fire-*
 16 *fighting Fund during the preceding fiscal year.*

17 **SEC. 4903. FOREST SERVICE EMERGENCY FIREFIGHTING**
 18 **PROGRAM.**

19 (a) *USE OF FUNDS.*—*The amounts deposited into the*
 20 *Forest Service Emergency Firefighting Fund established by*
 21 *section 4101(6) shall be made available, without further ap-*
 22 *propriation or fiscal year limitation, to pay for wildland*
 23 *fire suppression activities the costs of which are in excess*
 24 *of amounts annually appropriated to the Secretary of Agri-*

1 *culture for normal, nonemergency wildland fire suppression*
 2 *activities.*

3 *(b) ACCOUNTING AND REPORTING.—*

4 *(1) IN GENERAL.—Not later than 3 years after*
 5 *the date of enactment of this Act, the Secretary of Ag-*
 6 *riculture shall establish an accounting and reporting*
 7 *system, in accordance and compatible with National*
 8 *Fire Plan reporting procedures, for the activities car-*
 9 *ried out under this section.*

10 *(2) REQUIREMENT.—The system established*
 11 *under paragraph (1) shall require that the Secretary*
 12 *of Agriculture shall submit to the Committee on Nat-*
 13 *ural Resources of the House of Representatives and*
 14 *the Committee on Energy and Natural Resources of*
 15 *the Senate—*

16 *(A) a monthly report describing each ex-*
 17 *penditure made from the Forest Service Emer-*
 18 *gency Firefighting Fund during the preceding*
 19 *month; and*

20 *(B) a report at the end of each fiscal year*
 21 *describing the expenditures made from the Forest*
 22 *Service Emergency Firefighting Fund during the*
 23 *preceding fiscal year.*

1 ***TITLE V—ENERGY EFFICIENCY***

2 ***Subtitle A—Appliance Efficiency***

3 ***SEC. 5101. RESIDENTIAL BOILERS.***

4 *Section 325(f) of the Energy Policy and Conservation*
 5 *Act (42 U.S.C. 6925(f)) is amended—*

6 *(1) in the subsection heading, by inserting “AND*
 7 *BOILERS” after “FURNACES”;*

8 *(2) in paragraph (1), by striking “except that”*
 9 *and all that follows through subparagraph (A) and*
 10 *inserting “except that”;*

11 *(3) in subparagraph (B)—*

12 *(A) by striking “(B) the Secretary” and in-*
 13 *serting “the Secretary”; and*

14 *(B) by redesignating clauses (i) through*
 15 *(iii) as subparagraphs (A) through (C), respec-*
 16 *tively, and indenting appropriately;*

17 *(4) by redesignating paragraph (3) as para-*
 18 *graph (4); and*

19 *(5) by inserting after paragraph (2) the fol-*
 20 *lowing:*

21 *“(3) BOILERS.—*

22 *“(A) IN GENERAL.—Subject to subpara-*
 23 *graphs (B) and (C), boilers manufactured on or*
 24 *after September 1, 2012, shall meet the following*
 25 *requirements:*

<i>“Boiler Type Requirements</i>	<i>Minimum Annual Fuel Utili- zation Effi- ciency</i>	<i>Design</i>
<i>Gas hot water</i>	<i>82 percent</i>	<i>No constant burning pilot, auto- matic means for adjusting water temperature</i>
<i>Gas steam</i>	<i>80 percent</i>	<i>No constant burning pilot</i>
<i>Oil hot water</i>	<i>84 percent</i>	<i>Automatic means for adjusting temperature</i>
<i>Oil steam</i>	<i>82 percent</i>	<i>None</i>
<i>Electric hot water</i>	<i>None</i>	<i>Automatic means for adjusting temperature</i>
<i>Electric steam</i>	<i>None</i>	<i>None</i>

1 “(B) *AUTOMATIC MEANS FOR ADJUSTING*
2 *WATER TEMPERATURE.—*

3 “(i) *IN GENERAL.—The manufacturer*
4 *shall equip each gas, oil, and electric hot*
5 *water boiler (other than a boiler equipped*
6 *with tankless domestic water heating coils)*
7 *with an automatic means for adjusting the*
8 *temperature of the water supplied by the*
9 *boiler to ensure that an incremental change*
10 *in inferred heat load produces a cor-*
11 *responding incremental change in the tem-*
12 *perature of water supplied.*

13 “(ii) *CERTAIN BOILERS.—For a boiler*
14 *that fires at 1 input rate, the requirements*
15 *of this subparagraph may be satisfied by*
16 *providing an automatic means that allows*
17 *the burner or heating element to fire only*
18 *when the means has determined that the in-*

1 ferred heat load cannot be met by the resid-
2 ual heat of the water in the system.

3 “(iii) *NO INFERRED HEAT LOAD.*—
4 When there is no inferred heat load with re-
5 spect to a hot water boiler, the automatic
6 means described in clauses (i) and (ii) shall
7 limit the temperature of the water in the
8 boiler to not more than 140 degrees Fahr-
9 enheit.

10 “(iv) *OPERATION.*—A boiler described
11 in clause (i) or (ii) shall be operable only
12 when the automatic means described in
13 clauses (i), (ii), and (iii) is installed.

14 “(C) *EXCEPTION.*—A boiler that is manu-
15 factured to operate without any need for elec-
16 tricity, any electric connection, any electric
17 gauges, electric pumps, electric wires, or electric
18 devices of any sort, shall not be required to meet
19 the requirements of this subsection.”.

20 **SEC. 5102. REGIONAL VARIATIONS IN HEATING OR COOL-**
21 **ING STANDARDS.**

22 (a) *IN GENERAL.*—Section 327 of the Energy Policy
23 and Conservation Act (42 U.S.C. 6297) is amended—

24 (1) by redesignating subsections (e), (f), and (g)
25 as subsections (f), (g), and (h), respectively; and

1 (2) *by inserting after subsection (d) the fol-*
 2 *lowing:*

3 “(e) *REGIONAL STANDARDS FOR SPACE HEATING AND*
 4 *AIR CONDITIONING PRODUCTS.—*

5 “(1) *STANDARDS.—*

6 “(A) *IN GENERAL.—The Secretary may es-*
 7 *tablish regional standards for space heating and*
 8 *air conditioning products, other than window-*
 9 *unit air-conditioners and portable space heaters.*

10 “(B) *NATIONAL MINIMUM AND REGIONAL*
 11 *STANDARDS.—For each space heating and air*
 12 *conditioning product, the Secretary may estab-*
 13 *lish—*

14 “(i) *a national minimum standard;*
 15 *and*

16 “(ii) *2 more stringent regional stand-*
 17 *ards for regions determined to have signifi-*
 18 *cantly differing climatic conditions.*

19 “(C) *MAXIMUM SAVINGS.—Any standards*
 20 *established for a region under subparagraph*
 21 *(B)(ii) shall achieve the maximum level of en-*
 22 *ergy savings that are technically feasible and*
 23 *economically justified within that region.*

24 “(D) *ECONOMIC JUSTIFIABILITY STUDY.—*

1 “(i) *IN GENERAL.*—As a preliminary
 2 step in determining the economic justifi-
 3 ability of establishing a regional standard
 4 under subparagraph (B)(ii), the Secretary
 5 shall conduct a study involving stake-
 6 holders, including—

7 “(I) a representative from the Na-
 8 tional Institute of Standards and
 9 Technology;

10 “(II) representatives of nongovern-
 11 mental advocacy organizations;

12 “(III) representatives of product
 13 manufacturers, distributors, and in-
 14 stallers;

15 “(IV) representatives of the gas
 16 and electric utility industries; and

17 “(V) such other individuals as the
 18 Secretary may designate.

19 “(ii) *REQUIREMENTS.*—The study
 20 under this subparagraph—

21 “(I) shall determine the potential
 22 benefits and consequences of pre-
 23 scribing regional standards for heating
 24 and cooling products; and

1 “(II) may, if favorable to the
2 standards, constitute the evidence of
3 economic justifiability required under
4 this Act.

5 “(E) REGIONAL BOUNDARIES.—Regional
6 boundaries used in establishing regional stand-
7 ards under subparagraph (B)(ii) shall—

8 “(i) conform to State borders; and

9 “(ii) include only contiguous States
10 (other than Alaska and Hawaii), except
11 that on the request of a State, the Secretary
12 may divide the State to include a part of
13 the State in each of 2 regions.

14 “(2) NONCOMPLYING PRODUCTS.—If the Sec-
15 retary establishes standards for a region, it shall be
16 unlawful under section 332 to offer for sale at retail,
17 sell at retail, or install within the region products
18 that do not comply with the applicable standards.

19 “(3) DISTRIBUTION IN COMMERCE.—

20 “(A) IN GENERAL.—Except as provided in
21 subparagraph (B), no product manufactured in
22 a manner that complies with a regional stand-
23 ard established under paragraph (1) shall be dis-
24 tributed in commerce without a prominent label
25 affixed to the product that includes—

1 “(i) at the top of the label, in print of
2 not less than 14-point type, the following
3 statement: ‘It is a violation of Federal law
4 for this product to be installed in any State
5 outside the region shaded on the map print-
6 ed on this label.’;

7 “(ii) below the notice described in
8 clause (i), an image of a map of the United
9 States with clearly defined State boundaries
10 and names, and with all States in which
11 the product meets or exceeds the standard
12 established pursuant to paragraph (1)
13 shaded in a color or a manner as to be eas-
14 ily visible without obscuring the State
15 boundaries and names; and

16 “(iii) below the image of the map re-
17 quired under clause (ii), the following state-
18 ment: ‘It is a violation of Federal law for
19 this label to be removed, except by the owner
20 and legal resident of any single-family
21 home in which this product is installed.’.

22 “(B) ENERGY-EFFICIENCY RATING.—A
23 product manufactured that meets or exceeds all
24 regional standards established under this para-
25 graph shall bear a prominent label affixed to the

1 *product that includes at the top of the label, in*
 2 *print of not less than 14-point type, the fol-*
 3 *lowing statement: ‘This product has achieved an*
 4 *energy-efficiency rating under Federal law al-*
 5 *lowing its installation in any State.’.*

6 “(4) *RECORDKEEPING.*—*A manufacturer of*
 7 *space heating or air conditioning equipment subject*
 8 *to regional standards established under this subsection*
 9 *shall—*

10 “(A) *obtain and retain records on the in-*
 11 *tended installation locations of the equipment*
 12 *sold; and*

13 “(B) *make such records available to the Sec-*
 14 *retary on request.”.*

15 (b) *CONFORMING AMENDMENTS.*—*Section 327 of the*
 16 *Energy Policy and Conservation Act (42 U.S.C. 6297) is*
 17 *amended—*

18 (1) *in subsection (b)—*

19 (A) *in paragraph (2), by striking “sub-*
 20 *section (e)” and inserting “subsection (f)”;* and

21 (B) *in paragraph (3)—*

22 (i) *by striking “subsection (f)(1)” and*
 23 *inserting “subsection (g)(1)”;* and

24 (ii) *by striking “subsection (f)(2)” and*
 25 *inserting “subsection (g)(2)”;* and

1 (2) in subsection (c)(3), by striking “subsection
2 (f)(3)” and inserting “subsection (g)(3)”.

3 ***Subtitle B—Building Efficiency***

4 ***SEC. 5201. UPDATING STATE BUILDING ENERGY EFFI-***
5 ***CIENCY CODES.***

6 *Section 304 of the Energy Conservation and Produc-*
7 *tion Act (42 U.S.C. 6833) is amended to read as follows:*

8 ***“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-***
9 ***CIENCY CODES.***

10 *“(a) UPDATES.—*

11 *“(1) IN GENERAL.—The Secretary shall support*
12 *updating the national model building energy codes*
13 *and standards not later than 3 years after the date*
14 *of enactment of the Lieberman-Warner Climate Secu-*
15 *rity Act of 2007, and not less frequently every 3 years*
16 *thereafter, to achieve overall energy savings, as com-*
17 *pared to the IECC (2006) for residential buildings*
18 *and ASHRAE Standard 90.1 (2004) for commercial*
19 *buildings, of at least—*

20 *“(A) 30 percent, with respect to each edition*
21 *of a model code or standard published during the*
22 *period beginning on January 1, 2010, and end-*
23 *ing on December 31, 2019;*

1 “(B) 50 percent, with respect to each edi-
 2 tion of a model code or standard published on or
 3 after January 1, 2020; and

4 “(C) targets for intermediate and subse-
 5 quent years, to be established by the Secretary
 6 not less than 3 years before the beginning on
 7 each target year, in coordination with IECC and
 8 ASHRAE Standard 90.1 cycles, at the max-
 9 imum level of energy efficiency that is techno-
 10 logically feasible and lifecycle cost-effective.

11 “(2) REVISIONS TO IECC AND ASHRAE.—

12 “(A) IN GENERAL.—If the IECC or
 13 ASHRAE Standard 90.1 regarding building en-
 14 ergy use is revised, not later than 1 year after
 15 the date of the revision, the Secretary shall deter-
 16 mine whether the revision will—

17 “(i) improve energy efficiency in build-
 18 ings; and

19 “(ii) meet the energy savings goals de-
 20 scribed in paragraph (1).

21 “(B) MODIFICATIONS.—

22 “(i) IN GENERAL.—If the Secretary
 23 makes a determination under subparagraph
 24 (A)(ii) that a code or standard does not
 25 meet the energy savings goals established

1 *under paragraph (1) or if a national model*
2 *code or standard is not updated for more*
3 *than 3 years, not later than 1 year after the*
4 *determination or the expiration of the 3-*
5 *year period, the Secretary shall establish a*
6 *modified code or standard that meets the*
7 *energy savings goals.*

8 “(ii) *REQUIREMENTS.*—

9 “(I) *ENERGY SAVINGS.*—*A modi-*
10 *fication to a code or standard under*
11 *clause (i) shall—*

12 “(aa) *achieve the maximum*
13 *level of energy savings that is*
14 *technically feasible and lifecycle*
15 *cost-effective;*

16 “(bb) *be achieved through an*
17 *amendment or supplement to the*
18 *most recent revision of the IECC*
19 *or ASHRAE Standard 90.1 and*
20 *taking into consideration other*
21 *appropriate model codes and*
22 *standards; and*

23 “(cc) *incorporate available*
24 *appliances, technologies, and con-*
25 *struction practices.*

1 “(II) *TREATMENT AS BASE-*
 2 *LINE.—A modification to a code or*
 3 *standard under clause (i) shall serve as*
 4 *the baseline for the next applicable de-*
 5 *termination of the Secretary under*
 6 *subparagraph (A)(i).*

7 “(C) *PUBLIC PARTICIPATION.—The Sec-*
 8 *retary shall—*

9 “(i) *publish in the Federal Register a*
 10 *notice relating to each goal, determination,*
 11 *and modification under this paragraph;*
 12 *and*

13 “(ii) *provide an opportunity for public*
 14 *comment regarding the goals, determina-*
 15 *tions, and modifications.*

16 “(b) *STATE CERTIFICATION OF BUILDING ENERGY*
 17 *CODE UPDATES.—*

18 “(1) *GENERAL CERTIFICATION.—*

19 “(A) *IN GENERAL.—Not later than 2 years*
 20 *after the date of enactment of the Lieberman-*
 21 *Warner Climate Security Act of 2007, each State*
 22 *shall certify to the Secretary that the State has*
 23 *reviewed and updated the provisions of the resi-*
 24 *dential and commercial building codes of the*
 25 *State regarding energy efficiency.*

1 “(B) *ENERGY SAVINGS.*—A certification
 2 under subparagraph (A) shall include a dem-
 3 onstration that the applicable provisions of the
 4 State code meet or exceed, as applicable—

5 “(i)(I) the *IECC (2006)* for residential
 6 buildings; or

7 “(II) the *ASHRAE Standard 90.1*
 8 (2004) for commercial buildings; or

9 “(ii) the quantity of energy savings
 10 represented by the provisions referred to in
 11 clause (i).

12 “(2) *REVISION OF CODES AND STANDARDS.*—

13 “(A) *IN GENERAL.*—If the Secretary makes
 14 an affirmative determination under subsection
 15 (a)(2)(A)(i) or establishes a modified code or
 16 standard under subsection (a)(2)(B), not later
 17 than 2 years after the determination or proposal,
 18 each State shall certify that the State has re-
 19 viewed and updated the provisions of the resi-
 20 dential and commercial building codes of the
 21 State regarding energy efficiency.

22 “(B) *ENERGY SAVINGS.*—A certification
 23 under subparagraph (A) shall include a dem-
 24 onstration that the applicable provisions of the
 25 State code meet or exceed—

1 “(i) the modified code or standard; or

2 “(ii) the quantity of energy savings
3 represented by the modified code or stand-
4 ard.

5 “(C) *FAILURE TO DETERMINE.*—If the Sec-
6 retary fails to make a determination under sub-
7 section (a)(2)(A)(i) by the date specified in sub-
8 section (a)(2), or if the Secretary makes a nega-
9 tive determination, not later than 2 years after
10 the specified date or the date of the determina-
11 tion, each State shall certify that the State has—

12 “(i) reviewed the revised code or stand-
13 ard; and

14 “(ii) updated the provisions of the resi-
15 dential and commercial building codes of
16 the State as necessary to meet or exceed, as
17 applicable—

18 “(I) any provisions of a national
19 code or standard determined to im-
20 prove energy efficiency in buildings; or

21 “(II) energy savings achieved by
22 those provisions through other means.

23 “(c) *ACHIEVEMENT OF COMPLIANCE BY STATES.*—

24 “(1) *IN GENERAL.*—Not later than 3 years after
25 the date on which a State makes a certification under

1 *subsection (b), the State shall certify to the Secretary*
2 *that the State has achieved compliance with the build-*
3 *ing energy code that is the subject of the certification.*

4 *“(2) RATE OF COMPLIANCE.—The certification*
5 *shall include documentation of the rate of compliance*
6 *based on independent inspections of a random sample*
7 *of the new and renovated buildings covered by the*
8 *State code during the preceding calendar year.*

9 *“(3) COMPLIANCE.—A State shall be considered*
10 *to achieve compliance for purposes of paragraph (1)*
11 *if—*

12 *“(A) at least 90 percent of new and ren-*
13 *ovated buildings covered by the State code dur-*
14 *ing the preceding calendar year substantially*
15 *meet all the requirements of the code; or*

16 *“(B) the estimated excess energy use of new*
17 *and renovated buildings that did not meet the re-*
18 *quirements of the State code during the pre-*
19 *ceding calendar year, as compared to a baseline*
20 *of comparable buildings that meet the require-*
21 *ments of the code, is not more than 10 percent*
22 *of the estimated energy use of all new and ren-*
23 *ovated buildings covered by the State code dur-*
24 *ing the preceding calendar year.*

25 *“(d) FAILURE TO CERTIFY.—*

1 “(1) *EXTENSION OF DEADLINES.*—*The Secretary*
 2 *shall extend a deadline for certification by a State*
 3 *under subsection (b) or (c) for not more than 1 addi-*
 4 *tional year, if the State demonstrates to the satisfac-*
 5 *tion of the Secretary that the State has made—*

6 “(A) *a good faith effort to comply with the*
 7 *certification requirement; and*

8 “(B) *significant progress with respect to the*
 9 *compliance.*

10 “(2) *NONCOMPLIANCE BY STATE.*—

11 “(A) *IN GENERAL.*—*A State that fails to*
 12 *submit a certification required under subsection*
 13 *(b) or (c), and to which an extension is not pro-*
 14 *vided under paragraph (1), shall be considered to*
 15 *be out of compliance with this section.*

16 “(B) *EFFECT ON LOCAL GOVERNMENTS.*—*A*
 17 *local government of a State that is out of compli-*
 18 *ance with this section may be considered to be in*
 19 *compliance with this section if the local govern-*
 20 *ment meets each applicable certification require-*
 21 *ment of this section.*

22 “(e) *TECHNICAL ASSISTANCE.*—

23 “(1) *IN GENERAL.*—*The Secretary shall provide*
 24 *technical assistance (including building energy anal-*
 25 *ysis and design tools, building demonstrations, and*

1 *design assistance and training) to ensure that na-*
 2 *tional model building energy codes and standards*
 3 *meet the goals described in subsection (a)(1).*

4 “(2) *ASSISTANCE TO STATES.*—*The Secretary*
 5 *shall provide technical assistance to States—*

6 “(A) *to implement this section, including*
 7 *procedures for States to demonstrate that the*
 8 *codes of the States achieve equivalent or greater*
 9 *energy savings than the national model codes*
 10 *and standards;*

11 “(B) *to improve and implement State resi-*
 12 *dential and commercial building energy effi-*
 13 *ciency codes; and*

14 “(C) *to otherwise promote the design and*
 15 *construction of energy-efficient buildings.*

16 “(f) *INCENTIVE FUNDING.*—

17 “(1) *IN GENERAL.*—*The Secretary shall provide*
 18 *incentive funding to States—*

19 “(A) *to implement this section; and*

20 “(B) *to improve and implement State resi-*
 21 *dential and commercial building energy effi-*
 22 *ciency codes, including increasing and verifying*
 23 *compliance with the codes.*

24 “(2) *AMOUNT.*—*In determining whether, and in*
 25 *what amount, to provide incentive funding under this*

subsection, the Secretary shall take into consideration
actions proposed by the State—

“(A) to implement this section;

“(B) to implement and improve residential
and commercial building energy efficiency codes;
and

“(C) to promote building energy efficiency
through use of the codes.

“(3) *ADDITIONAL FUNDING.*—The Secretary shall
provide additional funding under this subsection for
implementation of a plan to demonstrate a rate of
compliance with applicable residential and commer-
cial building energy efficiency codes at a rate of not
less than 90 percent, based on energy performance—

“(A) to a State that has adopted and is im-
plementing, on a statewide basis—

“(i) a residential building energy effi-
ciency code that meets or exceeds the re-
quirements of the IECC (2006) (or a suc-
cessor code that is the subject of an affirma-
tive determination by the Secretary under
subsection (a)(2)(A)(i)); and

“(ii) a commercial building energy ef-
ficiency code that meets or exceeds the re-
quirements of the ASHRAE Standard 90.1

1 (2004) (or a successor standard that is the
 2 subject of an affirmative determination by
 3 the Secretary under subsection (a)(2)(A)(i));
 4 or

5 “(B) in the case of a State in which no
 6 statewide energy code exists for residential build-
 7 ings or commercial buildings, or in which the
 8 State code fails to comply with subparagraph
 9 (A), to a local government that has adopted and
 10 is implementing residential and commercial
 11 building energy efficiency codes, as described in
 12 subparagraph (A).

13 “(4) *TRAINING.*—Of the amounts made available
 14 to carry out this subsection, the Secretary may use
 15 not more than \$500,000 for each State to train State
 16 and local officials to implement State or local energy
 17 codes in accordance with a plan described in para-
 18 graph (3).”.

19 **SEC. 5202. CONFORMING AMENDMENT.**

20 Section 303 of the Energy Conservation and Produc-
 21 tion Act (42 U.S.C. 6832) is amended by adding at the
 22 end the following new paragraph:

23 “(17) *IECC.*—The term ‘IECC’ means the Inter-
 24 national Energy Conservation Code.”.

1 **TITLE VI—GLOBAL EFFORT TO**
 2 **REDUCE GREENHOUSE GAS**
 3 **EMISSIONS**

4 **SEC. 6001. DEFINITIONS.**

5 *In this title:*

6 (1) **BASELINE EMISSION LEVEL.**—*The term*
 7 *“baseline emission level” means, as determined by the*
 8 *Administrator, the total average annual greenhouse*
 9 *gas emissions attributed to a category of covered goods*
 10 *of a foreign country during the period beginning on*
 11 *January 1, 2012, and ending on December 31, 2014,*
 12 *based on—*

13 (A) *relevant data available for that period;*
 14 *and*

15 (B) *to the extent necessary with respect to*
 16 *a specific category of covered goods, economic*
 17 *and engineering models and best available infor-*
 18 *mation on technology performance levels for the*
 19 *manufacture of that category of covered goods.*

20 (2) **COMPARABLE ACTION.**—*The term “com-*
 21 *parable action” means any greenhouse gas regulatory*
 22 *programs, requirements, and other measures adopted*
 23 *by a foreign country that, in combination, are com-*
 24 *parable in effect to actions carried out by the United*
 25 *States to limit greenhouse gas emissions pursuant to*

1 *this Act, as determined by the President, taking into*
 2 *consideration the level of economic development of the*
 3 *foreign country.*

4 (3) *COMPLIANCE YEAR.*—*The term “compliance*
 5 *year” means each calendar year for which the re-*
 6 *quirements of this title apply to a category of covered*
 7 *goods of a covered foreign country that is imported*
 8 *into the United States.*

9 (4) *COVERED FOREIGN COUNTRY.*—*The term*
 10 *“covered foreign country” means a foreign country*
 11 *that is included on the covered list prepared under*
 12 *section 6006(b)(3).*

13 (5) *COVERED GOOD.*—*The term “covered good”*
 14 *means a good that (as identified by the Administrator*
 15 *by rule)—*

16 (A) *is a primary product;*

17 (B) *generates, in the course of the manufac-*
 18 *ture of the good, a substantial quantity of direct*
 19 *greenhouse gas emissions and indirect greenhouse*
 20 *gas emissions; and*

21 (C) *is closely related to a good the cost of*
 22 *production of which in the United States is af-*
 23 *fected by a requirement of this Act.*

24 (6) *FOREIGN COUNTRY.*—*The term “foreign*
 25 *country” means a member of, or observer government*

1 *to, the World Trade Organization (WTO), other than*
 2 *the United States.*

3 (7) *INDIRECT GREENHOUSE GAS EMISSIONS.*—
 4 *The term “indirect greenhouse gas emissions” means*
 5 *any emissions of a greenhouse gas resulting from the*
 6 *generation of electricity that is consumed during the*
 7 *manufacture of a good.*

8 (8) *INTERNATIONAL AGREEMENT.*—*The term*
 9 *“international agreement” means any international*
 10 *agreement to which the United States is a party, in-*
 11 *cluding the Marrakesh agreement establishing the*
 12 *World Trade Organization, done at Marrakesh on*
 13 *April 15, 1994.*

14 (9) *INTERNATIONAL RESERVE ALLOWANCE.*—*The*
 15 *term “international reserve allowance” means an al-*
 16 *lowance (denominated in units of metric tons of car-*
 17 *bon dioxide equivalent) that is—*

18 (A) *purchased from a special reserve of al-*
 19 *lowances pursuant to section 6006(a)(2); and*

20 (B) *used for purposes of meeting the re-*
 21 *quirements of section 6006.*

22 (10) *PRIMARY PRODUCT.*—*The term “primary*
 23 *product” means—*

24 (A) *iron, steel, aluminum, cement, bulk*
 25 *glass, or paper; or*

1 (B) any other manufactured product that—

2 (i) is sold in bulk for purposes of fur-
3 ther manufacture; and

4 (ii) generates, in the course of the man-
5 ufacture of the product, direct greenhouse
6 gas emissions and indirect greenhouse gas
7 emissions that are comparable (on an emis-
8 sions-per-dollar basis) to emissions gen-
9 erated in the manufacture of products by
10 covered facilities in the industrial sector.

11 **SEC. 6002. PURPOSES.**

12 The purposes of this title are—

13 (1) to promote a strong global effort to signifi-
14 cantly reduce greenhouse gas emissions;

15 (2) to ensure, to the maximum extent prac-
16 ticable, that greenhouse gas emissions occurring out-
17 side the United States do not undermine the objectives
18 of the United States in addressing global climate
19 change; and

20 (3) to encourage effective international action to
21 achieve those objectives through—

22 (A) agreements negotiated between the
23 United States and foreign countries; and

1 (B) measures carried out by the United
2 States that comply with applicable international
3 agreements.

4 **SEC. 6003. INTERNATIONAL NEGOTIATIONS.**

5 (a) *FINDING.*—Congress finds that the purposes de-
6 scribed in section 6002 can be most effectively addressed
7 and achieved through agreements negotiated between the
8 United States and foreign countries.

9 (b) *NEGOTIATING OBJECTIVE.*—

10 (1) *STATEMENT OF POLICY.*—It is the policy of
11 the United States to work proactively under the
12 United Nations Framework Convention on Climate
13 Change and, in other appropriate forums, to establish
14 binding agreements committing all major greenhouse
15 gas-emitting nations to contribute equitably to the re-
16 duction of global greenhouse gas emissions.

17 (2) *INTENT OF CONGRESS REGARDING OBJEC-*
18 *TIVE.*—To the extent that the agreements described in
19 subsection (a) involve measures that will affect inter-
20 national trade in any good or service, it is the intent
21 of Congress that the negotiating objective of the
22 United States shall be to focus multilateral and bilat-
23 eral international agreements on the reduction of
24 greenhouse gas emissions to advance achievement of
25 the purposes described in section 6002.

1 **SEC. 6004. INTERAGENCY REVIEW.**

2 (a) *INTERAGENCY GROUP.*—

3 (1) *ESTABLISHMENT.*—*The President shall estab-*
4 *lish an interagency group to carry out this section.*

5 (2) *CHAIRPERSON.*—*The chairperson of the*
6 *interagency group established under paragraph (1)*
7 *shall be the Secretary of State.*

8 (3) *REQUIREMENT.*—*The Administrator shall be*
9 *a member of the interagency group.*

10 (b) *DETERMINATIONS.*—

11 (1) *IN GENERAL.*—*Subject to paragraph (2), the*
12 *interagency group established under subsection (a)(1)*
13 *shall determine whether, and the extent to which, each*
14 *foreign country has taken comparable action to limit*
15 *the greenhouse gas emissions of the foreign country.*

16 (2) *EXEMPTION.*—*The interagency group may*
17 *exempt from a determination under paragraph (1)*
18 *any foreign country on the excluded list under section*
19 *6006(b)(2).*

20 (c) *REPORT TO PRESIDENT.*—*Not later than January*
21 *1, 2018, and annually thereafter, the interagency group*
22 *shall submit to the President a report describing the deter-*
23 *minations of the interagency group under subsection (b).*

24 **SEC. 6005. PRESIDENTIAL DETERMINATIONS.**

25 (a) *IN GENERAL.*—*Not later than January 1, 2019,*
26 *and annually thereafter, the President shall determine*

1 *whether each foreign country that is subject to interagency*
 2 *review under section 6004(b) has taken comparable action*
 3 *to limit the greenhouse gas emissions of the foreign country,*
 4 *taking into consideration—*

5 (1) *the baseline emission levels of the foreign*
 6 *country; and*

7 (2) *applicable reports submitted under section*
 8 *6004(c).*

9 *(b) REPORTS.—The President shall—*

10 (1) *submit to Congress an annual report describ-*
 11 *ing the determinations of the President under sub-*
 12 *section (a) for the most recent calendar year; and*

13 (2) *publish the determinations in the Federal*
 14 *Register.*

15 **SEC. 6006. INTERNATIONAL RESERVE ALLOWANCE PRO-**
 16 **GRAM.**

17 *(a) ESTABLISHMENT.—*

18 (1) *IN GENERAL.—The Administrator shall es-*
 19 *tablish a program under which the Administrator,*
 20 *during the 1-year period beginning on January 1,*
 21 *2019, and annually thereafter, shall offer for sale to*
 22 *United States importers international reserve allow-*
 23 *ances in accordance with this subsection.*

24 (2) *SOURCE.—International reserve allowances*
 25 *under paragraph (1) shall be issued from a special re-*

1 *serve of allowances that is separate from, and estab-*
 2 *lished in addition to, the quantity of allowances es-*
 3 *tablished under section 1201.*

4 (3) *PRICE.—*

5 (A) *IN GENERAL.—Subject to subparagraph*
 6 *(B), the Administrator shall establish, by rule, a*
 7 *methodology for determining the price of inter-*
 8 *national reserve allowances for each compliance*
 9 *year at a level that does not exceed the market*
 10 *price of allowances established under section*
 11 *1201 for the compliance year.*

12 (B) *MAXIMUM PRICE.—The price for an*
 13 *international reserve allowance under subpara-*
 14 *graph (A) shall not exceed the clearing price for*
 15 *current compliance year allowances established*
 16 *at the most recent auction of allowances by the*
 17 *Corporation.*

18 (4) *SERIAL NUMBER.—The Administrator shall*
 19 *assign a unique serial number to each international*
 20 *reserve allowance issued under this subsection.*

21 (5) *TRADING SYSTEM.—The Administrator may*
 22 *establish, by rule, a system for the sale, exchange,*
 23 *purchase, transfer, and banking of international re-*
 24 *serve allowances.*

1 (6) *REGULATED ENTITIES*.—*International re-*
 2 *serve allowances may not be submitted by regulated*
 3 *entities to comply with the allowance submission re-*
 4 *quirements of section 1202.*

5 (7) *PROCEEDS*.—*All proceeds from the sale of*
 6 *international reserve allowances under this subsection*
 7 *shall be allocated to a program that the Adminis-*
 8 *trator, in coordination with the Secretary of State,*
 9 *shall establish to mitigate the negative impacts of*
 10 *global climate change on disadvantaged communities*
 11 *in other countries.*

12 (b) *FOREIGN COUNTRY LISTS*.—

13 (1) *IN GENERAL*.—*Not later than January 1,*
 14 *2020, and annually thereafter, the President shall de-*
 15 *velop and publish in the Federal Register 2 lists of*
 16 *foreign countries, in accordance with this subsection.*

17 (2) *EXCLUDED LIST*.—

18 (A) *IN GENERAL*.—*The President shall iden-*
 19 *tify and publish in a list, to be known as the*
 20 *“excluded list”—*

21 (i) *each foreign country determined by*
 22 *the President under section 6005(a) to have*
 23 *taken action comparable to that taken by*
 24 *the United States to limit the greenhouse*
 25 *gas emissions of the foreign country; and*

1 (ii) each foreign country the share of
 2 total global greenhouse gas emissions of
 3 which is below the de minimis percentage
 4 described in subparagraph (B).

5 (B) *DE MINIMIS PERCENTAGE.*—The de
 6 minimis percentage referred to in subparagraph
 7 (A) is a percentage of total global greenhouse gas
 8 emissions of not more than 0.5, as determined by
 9 the President, for the most recent calendar year
 10 for which emissions and other relevant data is
 11 available, taking into consideration, as nec-
 12 essary, the annual average deforestation rate
 13 during a representative period for a foreign
 14 country that is a developing country.

15 (3) *COVERED LIST.*—

16 (A) *IN GENERAL.*—The President shall iden-
 17 tify and publish in a list, to be known as the
 18 “covered list”, each foreign country the covered
 19 goods of which are subject to the requirements of
 20 this section.

21 (B) *REQUIREMENT.*—The covered list shall
 22 include each foreign country that is not included
 23 on the excluded list under paragraph (2).

24 (c) *WRITTEN DECLARATIONS.*—

1 (1) *IN GENERAL.*—*Effective beginning January*
 2 *1, 2020, a United States importer of any covered good*
 3 *shall, as a condition of importation or withdrawal for*
 4 *consumption from a warehouse of the covered good,*
 5 *submit to the Administrator and the appropriate of-*
 6 *fice of the U.S. Customs and Border Protection a*
 7 *written declaration with respect to each such impor-*
 8 *tation or withdrawal.*

9 (2) *CONTENTS.*—*A written declaration under*
 10 *paragraph (1) shall contain a statement that—*

11 (A) *the applicable covered good is accom-*
 12 *panied by a sufficient number of international*
 13 *reserve allowances, as determined under sub-*
 14 *section (d); or*

15 (B) *the covered good is from a foreign coun-*
 16 *try on the excluded list under subsection (b)(2).*

17 (3) *INCLUSION.*—*A written declaration described*
 18 *in paragraph (2)(A) shall include the unique serial*
 19 *number of each emission allowance associated with*
 20 *the importation of the applicable covered good.*

21 (4) *FAILURE TO DECLARE.*—

22 (A) *IN GENERAL.*—*Except as provided in*
 23 *subparagraph (B), an imported covered good*
 24 *that is not accompanied by a written declaration*

1 *under this subsection shall not be permitted to*
 2 *enter the customs territory of the United States.*

3 *(B) EXCEPTION FOR CERTAIN IMPORTS.—*
 4 *Subparagraph (A) shall not apply to a covered*
 5 *good of a foreign country if the President deter-*
 6 *mines that—*

7 *(i) the foreign country has taken com-*
 8 *parable action to limit the greenhouse gas*
 9 *emissions of the foreign country, in accord-*
 10 *ance with section 6005;*

11 *(ii) the United Nations has identified*
 12 *the foreign country as among the least-de-*
 13 *veloped of developing countries; or*

14 *(iii) the foreign country is on the ex-*
 15 *cluded list under subsection (b)(2).*

16 *(5) CORRECTED DECLARATION.—*

17 *(A) IN GENERAL.—If, after making a dec-*
 18 *laration required under this subsection, an im-*
 19 *porter has reason to believe that the declaration*
 20 *contains information that is not correct, the im-*
 21 *porter shall provide a corrected declaration by*
 22 *not later than 30 days after the date of discovery*
 23 *of the error, in accordance with subparagraph*
 24 *(B).*

1 (B) *METHOD.*—A corrected declaration
 2 under subparagraph (A) shall be in the form of
 3 a letter or other written statement to the Admin-
 4 istrator and the office of the U.S. Customs and
 5 Border Protection to which the original declara-
 6 tion was submitted.

7 (d) *QUANTITY OF ALLOWANCES REQUIRED.*—

8 (1) *METHODOLOGY.*—

9 (A) *IN GENERAL.*—The Administrator shall
 10 establish, by rule, a method for calculating the
 11 required number of international reserve allow-
 12 ances that a United States importer must sub-
 13 mit, together with a written declaration under
 14 subsection (c), for each category of covered goods
 15 of each covered foreign country.

16 (B) *FORMULA.*—The Administrator shall
 17 develop a general formula for calculating the
 18 international reserve allowance requirement that
 19 applies, on a per unit basis, to each covered good
 20 of a covered foreign country that is imported
 21 during each compliance year.

22 (2) *INITIAL COMPLIANCE YEAR.*—

23 (A) *IN GENERAL.*—Subject to subparagraph
 24 (B), the methodology under paragraph (1) shall
 25 establish an international reserve allowance re-

1 *quirement (per unit imported into the United*
 2 *States) for the initial compliance year for each*
 3 *category of covered goods of each covered foreign*
 4 *country that is equal to the quotient obtained by*
 5 *dividing—*

6 *(i) the excess, if any, of the total emis-*
 7 *sions from the covered foreign country that*
 8 *are attributable to the category of covered*
 9 *goods produced during the most recent year*
 10 *for which data are available, over the base-*
 11 *line emission level of the covered foreign*
 12 *country for that category; and*

13 *(ii) the total quantity of the covered*
 14 *good produced in the covered foreign coun-*
 15 *try during the most recent calendar year.*

16 *(B) ADJUSTMENTS.—The Administrator*
 17 *shall adjust the requirement under subparagraph*
 18 *(A)—*

19 *(i) in accordance with the ratio that—*

20 *(I) the quantity of allowances that*
 21 *were allocated at no cost to entities*
 22 *within the industry sector manufac-*
 23 *turing the covered goods for the compli-*
 24 *ance year during which the covered*

1 *goods were imported into the United*
 2 *States; bears to*

3 *(II) the greenhouse gas emissions*
 4 *of that industry sector; and*

5 *(ii) to take into account the level of*
 6 *economic development of the covered foreign*
 7 *country in which the covered goods were*
 8 *produced.*

9 *(3) SUBSEQUENT COMPLIANCE YEARS.—For each*
 10 *subsequent compliance year, the Administrator shall*
 11 *revise, as appropriate, the international reserve allow-*
 12 *ance requirement applicable to each category of im-*
 13 *ported covered goods of each covered foreign country*
 14 *to reflect changes in the factors described in para-*
 15 *graph (2)(B).*

16 *(4) PUBLICATION.—Not later than 90 days before*
 17 *the beginning of each compliance year, the Adminis-*
 18 *trator shall publish in the Federal Register a schedule*
 19 *describing the required number of international re-*
 20 *serve allowances for each category of imported covered*
 21 *goods of each covered foreign country, as calculated*
 22 *under this subsection.*

23 *(e) FOREIGN ALLOWANCES AND CREDITS.—*

24 *(1) FOREIGN ALLOWANCES.—*

1 (A) *IN GENERAL.*—A United States im-
2 porter may submit, in lieu of an international
3 reserve allowance issued under this section, a for-
4 eign allowance or similar compliance instrument
5 distributed by a foreign country pursuant to a
6 cap and trade program that represents a com-
7 parable action.

8 (B) *COMMENSURATE CAP AND TRADE PRO-*
9 *GRAM.*—For purposes of subparagraph (A), a
10 cap and trade program that represents a com-
11 parable action shall include any greenhouse gas
12 regulatory program adopted by a covered foreign
13 country to limit the greenhouse gas emissions of
14 the covered foreign country, if the President cer-
15 tifies that the program—

16 (i)(I) places a quantitative limitation
17 on the total quantity of greenhouse gas
18 emissions of the covered foreign country (ex-
19 pressed in terms of tons emitted per cal-
20 endar year); and

21 (II) achieves that limitation through
22 an allowance trading system;

23 (ii) satisfies such criteria as the Presi-
24 dent may establish for requirements relating
25 to the enforceability of the cap and trade

1 *program, including requirements for moni-*
 2 *toring, reporting, verification procedures,*
 3 *and allowance tracking; and*

4 *(iii) is a comparable action.*

5 *(2) FOREIGN CREDITS.—*

6 *(A) IN GENERAL.—A United States im-*
 7 *porter may submit, in lieu of an international*
 8 *reserve allowance issued under this section, a for-*
 9 *foreign credit or a credit for an international offset*
 10 *project that the Administrator has authorized for*
 11 *use under subtitle E of title II.*

12 *(B) APPLICATION.—The limitation on the*
 13 *use of international reserve allowances by regu-*
 14 *lated entities under subsection (a)(6) shall not*
 15 *apply to a United States importer for purposes*
 16 *of this paragraph.*

17 *(f) RETIREMENT OF ALLOWANCES.—The Adminis-*
 18 *trator shall retire each international reserve allowance, for-*
 19 *foreign allowance, and foreign credit submitted to achieve com-*
 20 *pliance with this section.*

21 *(g) CONSISTENCY WITH INTERNATIONAL AGREE-*
 22 *MENTS.—The Administrator, in consultation with the Sec-*
 23 *retary of State, shall adjust the international reserve allow-*
 24 *ance requirements established under this section (including*
 25 *the quantity of international reserve allowances required for*

1 *each category of covered goods of a covered foreign country)*
 2 *as the Administrator determines to be necessary to ensure*
 3 *that the United States complies with all applicable inter-*
 4 *national agreements.*

5 (h) *TERMINATION.*—*The international reserve allow-*
 6 *ance requirements of this section shall not apply to a cov-*
 7 *ered good of a covered foreign country in any case in which*
 8 *the President makes a determination described in subsection*
 9 *(b)(2) with respect to the covered goods of that covered for-*
 10 *ign country.*

11 (i) *FINAL REGULATIONS.*—*Not later than January 1,*
 12 *2019, the Administrator shall promulgate such regulations*
 13 *as the Administrator determines to be necessary to carry*
 14 *out this section.*

15 **SEC. 6007. ADJUSTMENT OF INTERNATIONAL RESERVE AL-**
 16 **LOWANCE REQUIREMENTS.**

17 (a) *IN GENERAL.*—*Not later than January 1, 2023,*
 18 *and annually thereafter, the President shall prepare and*
 19 *submit to Congress a report that assesses the effectiveness*
 20 *of the applicable international reserve allowance require-*
 21 *ments under section 6006 with respect to the covered goods*
 22 *of each covered foreign country.*

23 (b) *INADEQUATE REQUIREMENTS.*—*If the President*
 24 *determines that an applicable international reserve allow-*
 25 *ance requirement is not adequate to achieve the purposes*

1 *of this title, the President, simultaneously with the submis-*
 2 *sion of the report under subsection (a), shall—*

3 *(1) adjust the requirement; or*

4 *(2) take such other action as the President deter-*
 5 *mines to be necessary to improve the effectiveness of*
 6 *the requirement, in accordance with all applicable*
 7 *international agreements.*

8 *(c) EFFECTIVE DATE.—An adjustment under sub-*
 9 *section (b)(1) shall take effect beginning on January 1 of*
 10 *the compliance year immediately following the date on*
 11 *which the adjustment is made.*

12 ***TITLE VII—REVIEWS AND*** 13 ***RECOMMENDATIONS***

14 ***SEC. 7001. NATIONAL ACADEMY OF SCIENCES REVIEWS.***

15 *(a) IN GENERAL.—Not later than 1 year after the date*
 16 *of enactment of this Act, the Administrator shall offer to*
 17 *enter into a contract with the National Academy of Sciences*
 18 *under which the Academy shall, not later than January 1,*
 19 *2012, and every 3 years thereafter, submit to Congress and*
 20 *the Administrator a report that includes an analysis of—*

21 *(1) the latest scientific information and data rel-*
 22 *evant to global climate change;*

23 *(2) the performance of this Act and other policies*
 24 *in reducing greenhouse gas emissions and mitigating*
 25 *the adverse impacts of global climate change;*

1 (3) *the performance of this Act in ensuring that*
2 *the Land and Water Conservation Fund established*
3 *under section 2 of the Land and Water Conservation*
4 *Fund Act of 1965 (16 U.S.C. 460l–5) receives funds*
5 *that are sufficient to carry out the purposes of that*
6 *Fund; and*

7 (4) *the performance of this Act in ensuring that*
8 *the Bureau of Land Management and the Forest*
9 *Service receive funds that are sufficient to enable*
10 *those agencies to suppress wildland fire effectively and*
11 *thereby minimize wildfire damage.*

12 (b) *LATEST SCIENTIFIC INFORMATION.*—*The analysis*
13 *required under subsection (a)(1) shall—*

14 (1) *address existing reports, including the most*
15 *recent assessment report of the Intergovernmental*
16 *Panel on Climate Change; and*

17 (2) *include a description of—*

18 (A) *trends in and projections for total*
19 *United States greenhouse gas emissions;*

20 (B) *trends in and projections for total*
21 *worldwide greenhouse gas emissions;*

22 (C) *current and projected future atmos-*
23 *pheric concentrations of greenhouse gases;*

24 (D) *current and projected future global av-*
25 *erage temperature, including an analysis of*

1 *whether an increase of global average tempera-*
 2 *ture in excess of 3.6 degrees Fahrenheit (2 de-*
 3 *grees Celsius) above the preindustrial average*
 4 *has occurred or is more likely than not to occur*
 5 *in the foreseeable future as a result of anthropo-*
 6 *genic climate change;*

7 *(E) current and projected future adverse*
 8 *impacts of global climate change on human pop-*
 9 *ulations, wildlife, and natural resources; and*

10 *(F) trends in and projections for the health*
 11 *of the oceans and ocean ecosystems, including*
 12 *predicted changes in ocean acidity, temperatures,*
 13 *the extent of coral reefs, and other indicators of*
 14 *ocean ecosystem health, resulting from anthropo-*
 15 *genic carbon dioxide and climate change.*

16 *(c) PERFORMANCE OF THIS ACT AND EXISTING TECH-*
 17 *NOLOGIES.—The analysis required under subsection (a)(2)*
 18 *shall include a description of—*

19 *(1) the extent to which this Act, in concert with*
 20 *other policies, will prevent a dangerous increase in*
 21 *global average temperature;*

22 *(2) the extent to which this Act, in concert with*
 23 *other policies, will prevent dangerous atmospheric*
 24 *concentrations of greenhouse gases;*

1 (3) the current and future projected deployment
 2 of technologies and practices that reduce or limit
 3 greenhouse gas emissions, including—

4 (A) technologies for capture and disposal of
 5 greenhouse gases;

6 (B) efficiency improvement technologies;

7 (C) zero-greenhouse gas emitting energy
 8 technologies, including solar, wind, geothermal,
 9 and nuclear technologies; and

10 (D) above- and below-ground biological se-
 11 questration technologies;

12 (4) the extent to which this Act and other poli-
 13 cies are accelerating the development and commercial
 14 deployment of technologies and practices that reduce
 15 and limit greenhouse gas emissions;

16 (5) the extent to which the allocations and dis-
 17 tributions of emission allowances and auction pro-
 18 ceeds under this Act are advancing the purposes of
 19 this Act, and whether any of those allocations and
 20 distributions should be modified, including by in-
 21 creasing the percentage of annual Emission Allowance
 22 Account being auctioned, to better carry out the pur-
 23 poses of this Act;

24 (6) whether the motor vehicle fuel and motor ve-
 25 hicle and nonroad regulations within the scope of Ex-

1 *ecutive Order 13432 (72 Fed. Reg. 27717; relating to*
2 *cooperation among agencies in protecting the environ-*
3 *ment with respect to greenhouse gas emissions from*
4 *motor vehicles, nonroad vehicles, and nonroad en-*
5 *gines) have been finalized and implemented by Fed-*
6 *eral agencies and departments;*

7 *(7) whether any other transportation-related pro-*
8 *grams, including fuel economy standard reform,*
9 *greenhouse gas vehicle emissions standards, renewable*
10 *fuel volume mandates, low-carbon fuel standards, and*
11 *activities to reduce vehicle miles traveled have been fi-*
12 *nalized and implemented by any Federal agencies or*
13 *departments;*

14 *(8) whether any regulation or program described*
15 *in paragraph (12) or (13) is expected to achieve, as*
16 *compared to the baseline greenhouse gas emissions*
17 *consistent with the reference case contained in the re-*
18 *port of the Energy Information Administration enti-*
19 *tled “Annual Energy Outlook 2006”, at a min-*
20 *imum—*

21 *(A) at least a 6.2-percent reduction in cu-*
22 *mulative greenhouse gas emissions from the*
23 *light-duty motor vehicle sector, including light-*
24 *duty vehicles and light-duty trucks, during the*

1 *period beginning on January 1, 2010, and end-*
2 *ing on December 31, 2020; or*

3 *(B) a cumulative reduction of approxi-*
4 *mately 1,140,000 metric tons of carbon dioxide*
5 *equivalent, measured on a full fuel cycle basis;*

6 *(9) whether additional measures, including an*
7 *increase in the earned income tax credit, a reduction*
8 *in payroll taxes, or the implementation of electronic*
9 *benefit transfers by State health and human services*
10 *agencies to reach low-income individuals who are not*
11 *required to file Federal income tax returns, are need-*
12 *ed to help low- and moderate-income individuals re-*
13 *spond to changes in the cost of energy-related goods*
14 *and services;*

15 *(10) the feasibility of expanding the definition of*
16 *the term “covered facility” under this Act;*

17 *(11) the feasibility of expanding the scope of the*
18 *compliance obligation established under section*
19 *1202(a);*

20 *(12) the feasibility of reducing the number of*
21 *emission allowances comprising the Emission Allow-*
22 *ance Account for 1 or more calendar years under this*
23 *Act;*

1 (13) the feasibility of establishing policies for re-
2 ducing greenhouse gas emissions over and above those
3 policies established by this Act;

4 (14) the feasibility of accelerating the commer-
5 cial deployment of existing and emerging renewable
6 energy technologies for electricity generation, from
7 solar, wind, geothermal energy, ocean energy (includ-
8 ing tidal, wave, current, and thermal) or biomass (as
9 defined in section 203(b) of the Energy Policy Act of
10 2005 (42 U.S.C. 15852(b))), utilizing a bonus emis-
11 sion allowance program comparable to the program
12 established under subtitle F of title III; and

13 (15) the results of a report on products manufac-
14 tured with recycled materials that—

15 (A) describes the greenhouse gas emission
16 reductions those products can achieve;

17 (B) summarizes and assesses the results of
18 research on manufactured products and scrap re-
19 cycling activities; and

20 (C) evaluates the lifecycle greenhouse gas
21 emission reduction and other benefits and issues
22 associated with—

23 (i) recycling scrap metal (including
24 end-of-life vehicles), recovered fiber (or
25 paper), scrap electronics, scrap glass, scrap

1 *plastics, scrap rubber, scrap tires, and*
2 *scrap textiles with respect to reduction or*
3 *avoidance of greenhouse gas to the environ-*
4 *ment;*

5 *(ii) using recyclable materials in man-*
6 *ufactured products;*

7 *(iii) designing and manufacturing*
8 *products that increase recyclable output;*

9 *(iv) eliminating or reducing the use of*
10 *substances and materials in products that*
11 *decrease recyclable output; and*

12 *(v) establishing a standardized system*
13 *for lifecycle greenhouse gas emission reduc-*
14 *tion measurement and certification for the*
15 *manufactured products and scrap recycling*
16 *sectors, including the potential options for*
17 *the structure and operation of such a sys-*
18 *tem.*

19 **SEC. 7002. ENVIRONMENTAL PROTECTION AGENCY REVIEW.**

20 *Not later than January 1, 2012, the Administrator*
21 *shall submit to Congress a report indicating—*

22 *(1) the latest scientific information and data rel-*
23 *evant to the health effects of mercury emissions from*
24 *coal-fired electric power generating facilities;*

1 (2) *the state of the technology designed to reduce*
 2 *mercury emissions from coal combustion, including*
 3 *the efficacy of the technology with respect to each coal*
 4 *type; and*

5 (3) *the extent to which the implementation of*
 6 *this Act is assisting in bringing concentrations of*
 7 *particulate matter and ozone into line with National*
 8 *Ambient Air Quality Standards.*

9 **SEC. 7003. ENVIRONMENTAL PROTECTION AGENCY REC-**
 10 **COMMENDATIONS.**

11 (a) *REVIEW.*—*Not later than January 1, 2013, and*
 12 *every 3 years thereafter, the Administrator shall submit to*
 13 *Congress recommendations for action in response to the*
 14 *most recent report submitted by the National Academy of*
 15 *Sciences under section 7001 and the report submitted by*
 16 *the Administrator under section 7002.*

17 (b) *CATEGORIES OF ACTION.*—*The categories of action*
 18 *eligible for inclusion in the recommendations submitted*
 19 *under subsection (a) include proposed legislation recom-*
 20 *mending—*

21 (1) *expansion of the definition of the term “cov-*
 22 *ered facility” under this Act;*

23 (2) *expansion of the scope of the compliance obli-*
 24 *gation established under section 1202;*

1 (3) *adjustment of the number of emission allow-*
 2 *ances comprising the Emission Allowance Account for*
 3 *1 or more calendar years under this Act;*

4 (4) *establishment of policies for reducing green-*
 5 *house gas emissions over and above those policies es-*
 6 *tablished under this Act;*

7 (5) *establishment of policies for reducing nation-*
 8 *wide emissions into the atmosphere of sulfur dioxide,*
 9 *nitrogen oxides, and mercury in excess of the reduc-*
 10 *tions resulting from the implementation of this Act;*
 11 *and*

12 (6) *establishment of a program, similar to the*
 13 *program established under subtitle F of title III, for*
 14 *distributing bonus emission allowances in order to ac-*
 15 *celerate the commercial deployment of existing and*
 16 *emerging renewable energy technologies for electricity*
 17 *generation.*

18 (c) *CONSISTENCY WITH REVIEWS.—The Adminis-*
 19 *trator shall include with each submission of recommenda-*
 20 *tions under subsection (a) an explanation of any inconsis-*
 21 *encies between the recommendations and the reviews sub-*
 22 *mitted by the National Academy of Sciences under section*
 23 *7001 and the report submitted by the Administrator under*
 24 *section 7002.*

1 (d) *SAVINGS CLAUSE.*—*Nothing in this title limits,*
 2 *procedurally affects, or otherwise restricts the authority of*
 3 *the Administrator, a State, or any person to use authorities*
 4 *under this Act or any other law to adopt or enforce any*
 5 *rule.*

6 **SEC. 7004. PRESIDENTIAL RECOMMENDATIONS.**

7 (a) *ESTABLISHMENT OF THE INTERAGENCY CLIMATE*
 8 *CHANGE TASK FORCE.*—*Not later than January 1, 2019,*
 9 *the President shall establish an Interagency Climate Change*
 10 *Task Force.*

11 (b) *COMPOSITION.*—*The members of the Interagency*
 12 *Climate Change Task Force shall be—*

- 13 (1) *the Administrator;*
- 14 (2) *the Secretary of Energy;*
- 15 (3) *the Secretary of the Treasury;*
- 16 (4) *the Secretary of Commerce; and*
- 17 (5) *such other Cabinet Secretaries as the Presi-*
 18 *dent may name to the membership of the Task Force.*

19 (c) *CHAIRMAN.*—*The Administrator shall act as*
 20 *Chairman of the Interagency Climate Change Task Force.*

21 (d) *REPORT TO PRESIDENT.*—

- 22 (1) *IN GENERAL.*—*Not later than April 1, 2019,*
 23 *the Task Force shall make public and submit to the*
 24 *President a consensus report making recommenda-*

1 *tions, including specific legislation for the President*
 2 *to recommend to Congress.*

3 (2) *BASIS.*—*The report shall be based on the*
 4 *third set of recommendations submitted by the Ad-*
 5 *ministrator to Congress under section 7003.*

6 (3) *INCLUSIONS.*—*The Task Force shall include*
 7 *with the consensus report an explanation of any in-*
 8 *consistencies between the consensus report and the*
 9 *third set of recommendations submitted by the Ad-*
 10 *ministrator to Congress under section 7003.*

11 (e) *PRESIDENTIAL RECOMMENDATION TO CON-*
 12 *GRESS.*—*Not later than July 1, 2020, the President shall*
 13 *submit to Congress the text of a proposed Act based on the*
 14 *consensus report submitted to the President under sub-*
 15 *section (d).*

16 **SEC. 7005. ADAPTATION ASSESSMENTS AND PLAN.**

17 (a) *REGIONAL ESTIMATES.*—

18 (1) *ESTIMATES.*—

19 (A) *IN GENERAL.*—*The Administrator, in*
 20 *consultation with the officials described in para-*
 21 *graph (2) and relevant State agencies, shall con-*
 22 *duct 6 regional infrastructure cost assessments in*
 23 *various regions of the United States, and a na-*
 24 *tional cost assessment, to provide estimates of the*

1 *range of costs that should be anticipated for ad-*
2 *aptation to the impacts of climate change.*

3 *(B) VARIOUS PROBABILITIES.—The Admin-*
4 *istrator shall develop the estimates under sub-*
5 *paragraph (A) for low, medium, and high prob-*
6 *abilities of climate change and the potential im-*
7 *pacts of climate change.*

8 *(2) DESCRIPTION OF OFFICIALS.—The officials*
9 *referred to in paragraph (1) are—*

10 *(A) the Secretary of Agriculture;*

11 *(B) the Secretary of Commerce;*

12 *(C) the Secretary of Defense;*

13 *(D) the Secretary of Energy;*

14 *(E) the Secretary of Health and Human*
15 *Services;*

16 *(F) the Secretary of Homeland Security;*

17 *(G) the Secretary of Housing and Urban*
18 *Development;*

19 *(H) the Secretary of the Interior;*

20 *(I) the Secretary of Transportation;*

21 *(J) the Director of United States Geological*
22 *Survey; and*

23 *(K) the heads of such other Federal agencies*
24 *and departments as the Administrator deter-*
25 *mines to be necessary.*

1 (3) *SUBMISSION TO CONGRESS.*—Not later than
 2 1 year after the date of enactment of this Act, the Ad-
 3 ministrator shall submit to Congress a report describ-
 4 ing the results of the assessments conducted under this
 5 subsection.

6 (b) *ADAPTATION PLAN.*—

7 (1) *IN GENERAL.*—Not later than 180 days after
 8 the date of enactment of this Act, the Administrator
 9 shall submit to Congress a climate change adaptation
 10 plan for the United States, based on—

11 (A) assessments performed by the United
 12 Nations Intergovernmental Panel on Climate
 13 Change in accordance with the Global Change
 14 Research Act of 1990 (15 U.S.C. 2921 *et seq.*);
 15 and

16 (B) any other assessment prepared by a
 17 Federal, regional, State, or local government en-
 18 tity that is—

19 (i) scientific;

20 (ii) peer-reviewed; or

21 (iii) subjected to public comment.

22 (2) *INCLUSIONS.*—The adaptation plan under
 23 paragraph (1) shall include—

24 (A) a prioritized list of vulnerable systems
 25 and regions in the United States;

1 (B) requirements for coordination between
 2 Federal, State, and local governments to ensure
 3 that key public infrastructure, safety, health, and
 4 land use planning and control issues are ad-
 5 dressed;

6 (C) requirements for coordination among
 7 the Federal Government, industry, and commu-
 8 nities;

9 (D) requirements for management of cli-
 10 mate change, including the need for information
 11 derived from inundation prediction systems on
 12 the impacts to coastal communities;

13 (E) an assessment of climate change science
 14 research needs, including probabilistic assess-
 15 ments as an aid to planning;

16 (F) an assessment of climate change tech-
 17 nology needs; and

18 (G) regional and national cost assessments
 19 for the range of costs that should be anticipated
 20 for adapting to the impacts of climate change.

21 (c) *IMPACTS OF CLIMATE CHANGE ON LOW-INCOME*
 22 *POPULATIONS.*—

23 (1) *IN GENERAL.*—*The Administrator shall con-*
 24 *duct research on the impact of climate change on low-*
 25 *income populations in all countries, including—*

1 (A) *an assessment of the adverse impact of*
 2 *climate change on—*

3 (i) *low-income populations in the*
 4 *United States; and*

5 (ii) *developing countries;*

6 (B)(i) *an identification of appropriate cli-*
 7 *mate change adaptation measures and programs*
 8 *for developing countries and low-income popu-*
 9 *lations;*

10 (ii) *an assessment of the impact of the*
 11 *measures and programs on low-income popu-*
 12 *lations; and*

13 (C) *an estimate of the costs of developing*
 14 *and implementing those climate change adapta-*
 15 *tion and mitigation programs.*

16 (2) *REPORT.—Not later than 1 year after the*
 17 *date of enactment of this Act, the Administrator shall*
 18 *submit to Congress a report describing the results of*
 19 *the research conducted under paragraph (1).*

20 **SEC. 7006. STUDY BY ADMINISTRATOR OF AVIATION SEC-**
 21 **TOR GREENHOUSE GAS EMISSIONS.**

22 (a) *IN GENERAL.—The Administrator shall enter into*
 23 *an agreement with the National Academy of Sciences under*
 24 *which the Academy shall conduct a study on greenhouse gas*

1 *emissions associated with the aviation industry, includ-*
2 *ing—*

3 (1) *a determination of appropriate data nec-*
4 *essary to make determinations of emission inven-*
5 *tories, considering fuel use, airport operations,*
6 *ground equipment, and all other sources of emissions*
7 *in the aviation industry;*

8 (2) *an estimate of projected industry emissions*
9 *for the following 5-year, 20-year, and 50-year periods;*

10 (3) *based on existing literature, research and*
11 *surveys to determine the existing best practices for*
12 *emission reduction in the aviation sector;*

13 (4) *recommendations on areas of focus for addi-*
14 *tional research for technologies and operations with*
15 *the highest potential to reduce emissions; and*

16 (5) *recommendations of actions that the Federal*
17 *Government could take to encourage or require addi-*
18 *tional emissions reductions.*

19 (b) *CONSULTATION.—In developing the parameters of*
20 *the study under this section, the Administrator shall con-*
21 *duct the study under this section in consultation with—*

22 (1) *the Secretary of Transportation, acting*
23 *through the Administrator of the Federal Aviation*
24 *Administration; and*

1 (2) *other appropriate Federal agencies and de-*
 2 *partments.*

3 **TITLE VIII—FRAMEWORK FOR**
 4 **GEOLOGICAL SEQUESTRATION OF CARBON DIOXIDE**

6 **SEC. 8001. NATIONAL DRINKING WATER REGULATIONS.**

7 (a) *IN GENERAL.*—*Section 1421 of the Safe Drinking*
 8 *Water Act (42 U.S.C. 300h) is amended—*

9 (1) *in subsection (b)(1), by striking “subsection*
 10 *(d)(2)” and inserting “subsection (e)(2)”;*

11 (2) *by redesignating subsection (d) as subsection*
 12 *(e); and*

13 (3) *by inserting after subsection (c) the fol-*
 14 *lowing:*

15 “(d) *CARBON DIOXIDE.*—

16 “(1) *REGULATIONS.*—*Not later than 1 year after*
 17 *the date of enactment of the Lieberman-Warner Cli-*
 18 *mate Security Act of 2007, the Administrator shall*
 19 *promulgate regulations for permitting commercial-*
 20 *scale underground injection of carbon dioxide for pur-*
 21 *poses of geological sequestration to address climate*
 22 *change, including provisions—*

23 “(A) *for monitoring and controlling the*
 24 *long-term storage of carbon dioxide and avoid-*
 25 *ing, to the maximum extent practicable, any re-*

1 *lease of carbon dioxide into the atmosphere, and*
2 *for ensuring protection of underground sources of*
3 *drinking water, human health, and the environ-*
4 *ment; and*

5 *“(B) relating to long-term liability associ-*
6 *ated with commercial-scale geological sequestra-*
7 *tion.*

8 *“(2) SUBSEQUENT REPORTS.—Not later than 5*
9 *years after the date on which regulations are promul-*
10 *gated pursuant to paragraph (1), and not less fre-*
11 *quently than once every 5 years thereafter, the Ad-*
12 *ministrator shall submit to Congress a report that*
13 *contains an evaluation of the effectiveness of the regu-*
14 *lations, based on current knowledge and experience,*
15 *with particular emphasis on any new information on*
16 *potential impacts of commercial-scale geological se-*
17 *questration on drinking water, human health, and the*
18 *environment.*

19 *“(3) REVISION.—If the Administrator deter-*
20 *mines, based on a report under paragraph (2), that*
21 *regulations promulgated pursuant to paragraph (1)*
22 *require revision, the Administrator shall promulgate*
23 *revised regulations not later than 1 year after the*
24 *date on which the applicable report is submitted to*
25 *Congress under paragraph (2).”.*

1 (b) *CONFORMING AMENDMENT.*—Section 1447(a)(4) of
 2 the *Safe Drinking Water Act* (42 U.S.C. 300j–6(a)(4)) is
 3 amended by striking “section 1421(d)(2)” and inserting
 4 “section 1421(e)(2)”.

5 **SEC. 8002. ASSESSMENT OF GEOLOGICAL STORAGE CAPAC-**
 6 **ITY FOR CARBON DIOXIDE.**

7 (a) *DEFINITIONS.*—In this section:

8 (1) *ASSESSMENT.*—The term “assessment”
 9 means the national assessment of capacity for carbon
 10 dioxide completed under subsection (f).

11 (2) *CAPACITY.*—The term “capacity” means the
 12 portion of a storage formation that can retain carbon
 13 dioxide in accordance with the requirements (includ-
 14 ing physical, geological, and economic requirements)
 15 established under the methodology developed under
 16 subsection (b).

17 (3) *ENGINEERED HAZARD.*—The term “engi-
 18 neered hazard” includes the location and completion
 19 history of any well that could affect a storage forma-
 20 tion or capacity.

21 (4) *RISK.*—The term “risk” includes any risk
 22 posed by a geomechanical, geochemical,
 23 hydrogeological, structural, or engineered hazard.

1 (5) *SECRETARY*.—The term “Secretary” means
2 the Secretary of the Interior, acting through the Di-
3 rector of the United States Geological Survey.

4 (6) *STORAGE FORMATION*.—The term “storage
5 formation” means a deep saline formation,
6 unmineable coal seam, oil or gas reservoir, or other
7 geological formation that is capable of accommodating
8 a volume of industrial carbon dioxide.

9 (b) *METHODOLOGY*.—Not later than 1 year after the
10 date of enactment of this Act, the Secretary shall develop
11 a methodology for conducting an assessment under sub-
12 section (f), taking into consideration—

13 (1) the geographical extent of all potential stor-
14 age formations in all States;

15 (2) the capacity of the potential storage forma-
16 tions;

17 (3) the injectivity of the potential storage forma-
18 tions;

19 (4) an estimate of potential volumes of oil and
20 gas recoverable by injection and storage of industrial
21 carbon dioxide in potential storage formations;

22 (5) the risk associated with the potential storage
23 formations; and

24 (6) the work performed to develop the Carbon Se-
25 questration Atlas of the United States and Canada

1 *completed by the Department of Energy in April*
2 *2006.*

3 *(c) COORDINATION.—*

4 *(1) FEDERAL COORDINATION.—*

5 *(A) CONSULTATION.—The Secretary shall*
6 *consult with the Secretary of Energy and the Ad-*
7 *ministrator regarding data sharing and the for-*
8 *mat, development of methodology, and content of*
9 *the assessment to ensure the maximum usefulness*
10 *and success of the assessment.*

11 *(B) COOPERATION.—The Secretary of En-*
12 *ergy and the Administrator shall cooperate with*
13 *the Secretary to ensure, to the maximum extent*
14 *practicable, the usefulness and success of the as-*
15 *essment.*

16 *(2) STATE COORDINATION.—The Secretary shall*
17 *consult with State geological surveys and other rel-*
18 *evant entities to ensure, to the maximum extent prac-*
19 *ticable, the usefulness and success of the assessment.*

20 *(d) EXTERNAL REVIEW AND PUBLICATION.—On com-*
21 *pletion of the methodology under subsection (b), the Sec-*
22 *retary shall—*

23 *(1) publish the methodology and solicit comments*
24 *from the public and the heads of affected Federal and*
25 *State agencies;*

1 (2) *establish a panel of individuals with exper-*
2 *tise in the matters described in paragraphs (1)*
3 *through (5) of subsection (b) composed, as appro-*
4 *priate, of representatives of Federal agencies, institu-*
5 *tions of higher education, nongovernmental organiza-*
6 *tions, State organizations, industry, and inter-*
7 *national geosciences organizations to review the meth-*
8 *odology and comments received under paragraph (1);*
9 *and*

10 (3) *on completion of the review under paragraph*
11 *(2), publish in the Federal Register the revised final*
12 *methodology.*

13 (e) *PERIODIC UPDATES.*—*The methodology developed*
14 *under this section shall be updated periodically (including*
15 *not less frequently than once every 5 years) to incorporate*
16 *new data as the data becomes available.*

17 (f) *NATIONAL ASSESSMENT.*—

18 (1) *IN GENERAL.*—*Not later than 2 years after*
19 *the date of publication of the methodology under sub-*
20 *section (d)(3), the Secretary, in consultation with the*
21 *Secretary of Energy and State geological surveys,*
22 *shall complete a national assessment of the capacity*
23 *for carbon dioxide storage in accordance with the*
24 *methodology.*

1 (2) *GEOLOGICAL VERIFICATION.*—As part of the
 2 assessment, the Secretary shall carry out a character-
 3 ization program to supplement the geological data
 4 relevant to determining storage capacity in carbon
 5 dioxide in geological storage formations, including—

6 (A) well log data;

7 (B) core data; and

8 (C) fluid sample data.

9 (3) *PARTNERSHIP WITH OTHER DRILLING PRO-*
 10 GRAMS.—As part of the drilling characterization
 11 under paragraph (2), the Secretary shall enter into
 12 partnerships, as appropriate, with other entities to
 13 collect and integrate data from other drilling pro-
 14 grams relevant to the storage of carbon dioxide in geo-
 15 logic formations.

16 (4) *INCORPORATION INTO NATCARB.*—

17 (A) *IN GENERAL.*—On completion of the as-
 18 sessment, the Secretary shall incorporate the re-
 19 sults of the assessment using, to the maximum
 20 extent practicable—

21 (i) the NatCarb database; or

22 (ii) a new database developed by the
 23 Secretary, as the Secretary determines to be
 24 necessary.

1 (B) *RANKING.*—*The database shall include*
2 *the data necessary to rank potential storage*
3 *sites—*

- 4 (i) *for capacity and risk;*
5 (ii) *across the United States;*
6 (iii) *within each State;*
7 (iv) *by formation; and*
8 (v) *within each basin.*

9 (5) *REPORT.*—*Not later than 180 days after the*
10 *date on which the assessment is completed, the Sec-*
11 *retary shall submit to the Committee on Energy and*
12 *Natural Resources of the Senate and the Committee*
13 *on Science and Technology of the House of Represent-*
14 *atives a report describing the results of the assess-*
15 *ment.*

16 (6) *PERIODIC UPDATES.*—*The assessment shall*
17 *be updated periodically (including not less frequently*
18 *than once every 5 years) as necessary to support pub-*
19 *lic and private sector decisionmaking, as determined*
20 *by the Secretary.*

1 **SEC. 8003. STUDY OF THE FEASIBILITY RELATING TO CON-**
2 **STRUCTION OF PIPELINES AND GEOLOGICAL**
3 **CARBON DIOXIDE SEQUESTRATION ACTIVI-**
4 **TIES.**

5 (a) *IN GENERAL.*—*The Secretary of Energy, in coordi-*
6 *nation with the Administrator, the Federal Energy Regu-*
7 *latory Commission, the Secretary of Transportation, and*
8 *the Secretary of the Interior, shall conduct a study to assess*
9 *the feasibility of the construction of—*

10 (1) *pipelines to be used for the transportation of*
11 *carbon dioxide for the purpose of sequestration or en-*
12 *hanced oil recovery; and*

13 (2) *geological carbon dioxide sequestration facili-*
14 *ties.*

15 (b) *SCOPE.*—*The study shall consider—*

16 (1) *any barrier or potential barrier in existence*
17 *as of the date of enactment of this Act, including any*
18 *technical, siting, financing, or regulatory barrier, re-*
19 *lating to—*

20 (A) *the construction of pipelines to be used*
21 *for the transportation of carbon dioxide for the*
22 *purpose of sequestration or enhanced oil recov-*
23 *ery; or*

24 (B) *the geological sequestration of carbon*
25 *dioxide;*

1 (2) *any market risk (including throughput risk)*
2 *relating to—*

3 (A) *the construction of pipelines to be used*
4 *for the transportation of carbon dioxide for the*
5 *purpose of sequestration or enhanced oil recov-*
6 *ery; or*

7 (B) *the geological sequestration of carbon*
8 *dioxide;*

9 (3) *any regulatory, financing, or siting option*
10 *that, as determined by the Secretary of Energy,*
11 *would—*

12 (A) *mitigate any market risk described in*
13 *paragraph (2); or*

14 (B) *help ensure the construction of pipelines*
15 *dedicated to the transportation of carbon dioxide*
16 *for the purpose of sequestration or enhanced oil*
17 *recovery;*

18 (4) *the means by which to ensure the safe han-*
19 *dling and transportation of carbon dioxide;*

20 (5) *any preventive measure to ensure the inte-*
21 *gration of pipelines to be used for the transportation*
22 *of carbon dioxide for the purpose of sequestration or*
23 *enhanced oil recovery; and*

24 (6) *any other appropriate use, as determined by*
25 *the Secretary of Energy, in coordination with the Ad-*

1 *ministrator, the Federal Energy Regulatory Commis-*
 2 *sion, the Secretary of Transportation, and the Sec-*
 3 *retary of the Interior.*

4 *(c) REPORT.—Not later than 180 days after the date*
 5 *of enactment of this Act, the Secretary of Energy shall sub-*
 6 *mit to the Congress a report describing the results of the*
 7 *study.*

8 **SEC. 8004. LIABILITIES FOR CLOSED GEOLOGICAL STORAGE**
 9 **SITES.**

10 *(a) ESTABLISHMENT OF TASK FORCE.—As soon as*
 11 *practicable after the date of enactment of this Act, the Ad-*
 12 *ministrator shall establish a task force, to be composed of*
 13 *an equal number of stakeholders, the public, subject matter*
 14 *experts, and members of the private sector, to conduct a*
 15 *study of the legal framework, environmental and safety con-*
 16 *siderations, and cost implications of potential Federal as-*
 17 *sumption of liability with respect to closed geological stor-*
 18 *age sites.*

19 *(b) REPORT.—Not later than 18 months after the date*
 20 *of enactment of this Act, the task force established under*
 21 *subsection (a) shall submit to Congress a report describing*
 22 *the results of the study conducted under subsection (a), in-*
 23 *cluding recommendations of the task force, if any, with re-*
 24 *spect to the framework described in that subsection.*

1 ***TITLE IX—MISCELLANEOUS***

2 ***SEC. 9001. PARAMOUNT INTEREST WAIVER.***

3 (a) *IN GENERAL.*—If the President determines that a
4 national security emergency exists and, in light of informa-
5 tion that was not available as of the date of enactment of
6 this Act, it is in the paramount interest of the United States
7 to modify any requirement under this Act to minimize the
8 effects of the emergency, the President may, after oppor-
9 tunity for public notice and comment, temporarily adjust,
10 suspend, or waive any regulations promulgated pursuant
11 to this Act to achieve that minimization.

12 (b) *CONSULTATION.*—In making an emergency deter-
13 mination under subsection (a), the President shall, to the
14 maximum extent practicable, consult with and take into ac-
15 count any advice received from—

16 (1) *the National Academy of Sciences;*

17 (2) *the Secretary of Energy; and*

18 (3) *the Administrator.*

19 (c) *JUDICIAL REVIEW.*—An emergency determination
20 under subsection (a) shall be subject to judicial review in
21 accordance with section 307 of the Clean Air Act (42 U.S.C.
22 7607).

1 **SEC. 9002. ADMINISTRATIVE PROCEDURE AND JUDICIAL**
 2 **REVIEW.**

3 (a) *RULEMAKING PROCEDURES.*—Any rule, require-
 4 ment, regulation, method, standard, program, determina-
 5 tion, or final action made or promulgated pursuant to any
 6 title of this Act, with the exception of sections 3101, 3102,
 7 3201, and 3901, shall be subject to the rulemaking proce-
 8 dures described in sections 551 through 557 of title 5,
 9 United States Code.

10 (b) *ENFORCEMENT.*—Each provision of this Act (in-
 11 cluding provisions relating to mandatory duties of the Ad-
 12 ministrator) shall be fully enforceable pursuant to sections
 13 113, 303, and 304 of the Clean Air Act (42 U.S.C. 7413,
 14 7603, 7604).

15 (c) *RECORDKEEPING, INSPECTIONS, MONITORING,*
 16 *ENTRY, AND SUBPOENAS.*—The Administrator shall have
 17 the same powers and authority provided under sections 114
 18 and 307(a) of the Clean Air Act (42 U.S.C. 7414, 7607(a))
 19 in carrying out, administering, and enforcing this Act.

20 (d) *JUDICIAL REVIEW.*—A petition for judicial review
 21 of any regulation promulgated, or final action carried out,
 22 by the Administrator pursuant to this Act may be filed
 23 only—

24 (1) in the United States Court of Appeals for the
 25 District of Columbia; and

1 (2) *in accordance with section 307(b) of the*
 2 *Clean Air Act (42 U.S.C. 7607(b)).*

3 **SEC. 9003. RETENTION OF STATE AUTHORITY.**

4 (a) *IN GENERAL.*—*Except as provided in subsection*
 5 *(b), in accordance with section 116 of the Clean Air Act*
 6 *(42 U.S.C. 7416) and section 510 of the Federal Water Pol-*
 7 *lution Control Act (33 U.S.C. 1370), nothing in this Act*
 8 *precludes or abrogates the right of any State to adopt or*
 9 *enforce—*

10 (1) *any standard, cap, limitation, or prohibition*
 11 *relating to emissions of greenhouse gas; or*

12 (2) *any requirement relating to control, abate-*
 13 *ment, or avoidance of emissions of greenhouse gas.*

14 (b) *EXCEPTION.*—*Notwithstanding subsection (a), no*
 15 *State may adopt a standard, cap, limitation, prohibition,*
 16 *or requirement that is less stringent than the applicable*
 17 *standard, cap, limitation, prohibition, or requirement*
 18 *under this Act.*

19 **SEC. 9004. TRIBAL AUTHORITY.**

20 *For purposes of this Act, the Administrator may treat*
 21 *any federally recognized Indian tribe as a State, in accord-*
 22 *ance with section 301(d) of the Clean Air Act (42 U.S.C.*
 23 *7601(d)).*

1 **SEC. 9005. ROCKY MOUNTAIN CENTERS FOR STUDY OF**
2 **COAL UTILIZATION.**

3 (a) *DESIGNATION.*—*The University of Wyoming and*
4 *Montana State University shall be known and designated*
5 *as the “Rocky Mountain Centers for the Study of Coal Uti-*
6 *lization”.*

7 (b) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*
8 *authorized to be appropriated such sums as are necessary*
9 *to carry out this section.*

10 **SEC. 9006. SUN GRANT CENTER RESEARCH ON COMPLIANCE**
11 **WITH CLEAN AIR ACT.**

12 (a) *DESIGNATION.*—*Each sun grant center is des-*
13 *ignated as a research institution of the Environmental Pro-*
14 *tection Agency for the purpose of conducting studies regard-*
15 *ing the effects of biofuels and biomass on national and re-*
16 *gional compliance with the Clean Air Act (42 U.S.C. 7401*
17 *et seq.).*

18 (b) *FUNDING.*—*The Administrator shall provide to the*
19 *sun grant centers such funds as the Administrator deter-*
20 *mines to be necessary to carry out studies described in sub-*
21 *section (a).*

22 (c) *AUTHORIZATION OF APPROPRIATIONS.*—*There are*
23 *authorized to be appropriated such sums as are necessary*
24 *to carry out this section.*

1 **SEC. 9007. AUTHORIZATION OF APPROPRIATIONS.**

2 *There are authorized to be appropriated such sums as*
 3 *are necessary to carry out this Act.*

4 **TITLE X—CONTROL OF**
 5 **HYDROFLUOROCARBON CON-**
 6 **SUMPTION**

7 **SEC. 10001. APPLICABILITY.**

8 *For purposes of this Act, it shall be unlawful for any*
 9 *person to produce or import for consumption in the United*
 10 *States any hydrofluorocarbon, or product or equipment con-*
 11 *taining a hydrofluorocarbon, except exclusively in accord-*
 12 *ance with this title and the regulations promulgated by the*
 13 *Administrator pursuant to this title.*

14 **SEC. 10002. DEFINITIONS.**

15 *In this title:*

16 (1) *BASELINE.*—*The term “baseline” means the*
 17 *global warming potential-weighted equivalent of*
 18 *300,000,000 metric tons of carbon dioxide.*

19 (2) *ENTITY; PERSON.*—*The terms “entity” and*
 20 *“person” have the meaning given the term “person”*
 21 *in section 551 of title 5, United States Code.*

22 (3) *GLOBAL WARMING POTENTIAL.*—

23 (A) *IN GENERAL.*—*The term “global warm-*
 24 *ing potential” means the potential contribution*
 25 *to global warming of a hydrofluorocarbon, as*

1 *compared to the potential contribution to global*
 2 *warming of an equal weight of carbon dioxide.*

3 (B) *CALCULATION.—For the purposes of*
 4 *calculating the global warming potential of a*
 5 *hydrofluorocarbon, the values for the 100-year*
 6 *time horizon in the fourth assessment report of*
 7 *the Intergovernmental Panel on Climate Change*
 8 *shall be used.*

9 (4) *GLOBAL WARMING POTENTIAL-WEIGHTED.—*
 10 *The term “global warming potential-weighted”, with*
 11 *respect to a hydrofluorocarbon, means the value equal*
 12 *to the product obtained, for purposes of determining*
 13 *the quantity of carbon dioxide with an equivalent*
 14 *global warming potential, by multiplying—*

15 (A) *a certain quantity of the*
 16 *hydrofluorocarbon; and*

17 (B) *the global warming potential of the*
 18 *hydrofluorocarbon.*

19 (5) *HYDROCHLOROFLUOROCARBON.—The term*
 20 *“hydrochlorofluorocarbon” means any*
 21 *hydrochlorofluorocarbon identified in section 602(b) of*
 22 *the Clean Air Act (42 U.S.C. 7671a(b)).*

23 (6) *HYDROFLUOROCARBON.—The term*
 24 *“hydrofluorocarbon” means a hydrofluoroalkane.*

25 (7) *HYDROFLUOROCARBON CONSUMPTION.—*

1 (A) IN GENERAL.—The term
2 “hydrofluorocarbon consumption”, with respect
3 to a hydrofluorocarbon, means—

4 (i) in the case of a hydrofluorocarbon
5 producer, a value equal to the difference be-
6 tween—

7 (I) a value equal to the sum of—

8 (aa) the quantity of the
9 hydrofluorocarbon produced in the
10 United States; and

11 (bb) the quantity of the
12 hydrofluorocarbon imported from
13 any source into the United States
14 or acquired in the United States
15 from another hydrofluorocarbon
16 producer through sale or other
17 transaction; and

18 (II) the quantity of the
19 hydrofluorocarbon exported or trans-
20 ferred to another hydrofluorocarbon
21 producer or importer in the United
22 States through sale or other trans-
23 action; and

1 (ii) in the case of a hydrofluorocarbon
 2 importer, a value equal to the difference be-
 3 tween—

4 (I) the quantity of the
 5 hydrofluorocarbon imported from any
 6 source into the United States; and

7 (II) the quantity of the
 8 hydrofluorocarbon exported.

9 (B) EXCLUSION.—The term
 10 “hydrofluorocarbon consumption” does not in-
 11 clude a quantity of hydrofluorocarbon that is re-
 12 cycled.

13 (8) HYDROFLUOROCARBON CONSUMPTION AL-
 14 LOWANCE.—The term “hydrofluorocarbon consump-
 15 tion allowance” means an authorization—

16 (A) to produce or import a global warming
 17 potential-weighted quantity of hydrofluorocarbon
 18 equivalent to 1 metric ton of carbon dioxide; or

19 (B) to import products or equipment con-
 20 taining a quantity of hydrofluorocarbon equiva-
 21 lent in global warming potential to 1 metric ton
 22 of carbon dioxide.

23 (9) HYDROFLUOROCARBON DESTRUCTION.—The
 24 term “hydrofluorocarbon destruction” means a proc-
 25 ess that results in the permanent transformation or

1 *decomposition of all or a significant portion of a*
2 *hydrofluorocarbon to another gas, liquid, or solid with*
3 *a lower or zero global warming potential.*

4 (10) *HYDROFLUOROCARBON DESTRUCTION AL-*
5 *LOWANCE.—The term “hydrofluorocarbon destruction*
6 *allowance” means an authorization to produce or im-*
7 *port a global warming potential-weighted quantity of*
8 *hydrofluorocarbon equal to the global warming poten-*
9 *tial-weighted quantity of hydrofluorocarbon destroyed*
10 *pursuant to section 10010.*

11 (11) *HYDROFLUOROCARBON IMPORTER.—The*
12 *term “hydrofluorocarbon importer” means an entity*
13 *that imported hydrofluorocarbon or products or*
14 *equipment containing hydrofluorocarbon into the*
15 *United States during calendar year 2005.*

16 (12) *HYDROFLUOROCARBON PRODUCER.—The*
17 *term “hydrofluorocarbon producer” means an entity*
18 *that produced hydrofluorocarbon in the United States*
19 *for sale in the United States during calendar year*
20 *2005.*

21 (13) *IMPORT.—The term “import” means the ac-*
22 *tion of landing on or bringing or introducing a prod-*
23 *uct into, or attempting to land on or bring or intro-*
24 *duce a product into, any area subject to the jurisdic-*
25 *tion of the United States, regardless of whether the ac-*

tion constitutes an importation within the meaning of the customs laws of the United States.

(14) *PRODUCE; PRODUCTION.*—

(A) *IN GENERAL.*—The terms “produce” and “production” mean the manufacture of a hydrofluorocarbon from any raw material, feedstock, or chemical.

(B) *EXCLUSIONS.*—The terms “produce” and “production” do not include—

(i) the manufacture of a hydrofluorocarbon that is used and entirely consumed (except for trace quantities) in the manufacture of other chemicals or products; or

(ii) the reuse or recycling of a hydrofluorocarbon.

(15) *RECYCLE; REUSE.*—The terms “reuse” and “recycle” mean—

(A) the removal of a quantity of hydrofluorocarbon from a product or equipment;

(B) the reprocessing of the product or equipment to remove impurities; and

(C) the offering of the product or equipment for sale in the United States.

1 **SEC. 10003. CAP ON HYDROFLUOROCARBON CONSUMPTION**
2 **AND IMPORTATION INTO UNITED STATES.**

3 (a) *ESTABLISHMENT.*—*The Administrator shall estab-*
4 *lish a cap on hydrofluorocarbon consumption in the United*
5 *States for each calendar year during the period of calendar*
6 *years 2010 through 2050, as directed in section 10004 that*
7 *shall not be exceeded except as provided in section 10009.*

8 (b) *PROHIBITION.*—*Consumption of a*
9 *hydrofluorocarbon or products or equipment containing*
10 *any hydrofluorocarbon, except as provided in this title,*
11 *shall be illegal.*

12 **SEC. 10004. HYDROFLUOROCARBON CONSUMPTION ALLOW-**
13 **ANCE ACCOUNT.**

14 (a) *ALLOWANCE ACCOUNT.*—

15 (1) *ESTABLISHMENT.*—*Not later than April 1,*
16 *2009, and annually thereafter through April 1, 2050,*
17 *the Administrator shall establish and allocate a sepa-*
18 *rate quantity of hydrofluorocarbon consumption al-*
19 *lowances.*

20 (2) *DENOMINATION.*—*Hydrofluorocarbon con-*
21 *sumption allowances shall be denominated in metric*
22 *tons of carbon dioxide equivalent.*

23 (b) *IDENTIFICATION NUMBERS.*—*The Administrator*
24 *shall assign to each hydrofluorocarbon consumption allow-*
25 *ance established under subsection (a) a unique identifica-*

1 *tion number that includes the calendar year for which the*
2 *hydrofluorocarbon consumption allowance was assigned.*

3 (c) *LEGAL STATUS OF HYDROFLUOROCARBON CON-*
4 *SUMPTION ALLOWANCES.—*

5 (1) *IN GENERAL.—A consumption allowance al-*
6 *located under this title is a limited authorization to*
7 *produce or import a hydrofluorocarbon and any prod-*
8 *uct or equipment containing a hydrofluorocarbon, in*
9 *accordance with this title.*

10 (2) *ALLOWANCE NOT PROPERTY RIGHT.—A*
11 *hydrofluorocarbon consumption allowance does not*
12 *constitute a property right.*

13 (3) *TERMINATION OR LIMITATION.—Nothing in*
14 *this Act or any other provision of law limits the au-*
15 *thority of the United States to terminate or limit*
16 *hydrofluorocarbon consumption allowances.*

17 (4) *EFFECT OF ACT.—Nothing in this Act relat-*
18 *ing to hydrofluorocarbon consumption allowances*
19 *shall affect the application of, or any requirement of*
20 *compliance with, any other provision of law by any*
21 *person.*

22 (d) *LIFETIME OF HYDROFLUOROCARBON CONSUMP-*
23 *TION ALLOWANCES.—Hydrofluorocarbon consumption al-*
24 *lowances distributed by the Administrator and*
25 *hydrofluorocarbon destruction allowances may be used for*

1 compliance for a period of not more than 5 years after the
 2 calendar year for which the allowances are allocated.

3 (e) *HYDROFLUOROCARBON CONSUMPTION ALLOW-*
 4 *ANCES FOR EACH CALENDAR YEAR.*—The number of
 5 hydrofluorocarbon consumption allowances established and
 6 allocated by the Administrator for each of calendar years
 7 2010 through 2050 shall be as follows:

<i>Calendar year</i>	<i>HFC consumption allowances (in million metric tons)</i>
2010	300
2011	294
2012	289
2013	283
2014	278
2015	272
2016	267
2017	261
2018	256
2019	250
2020	245
2021	239
2022	234
2023	228
2024	222
2025	217
2026	206
2027	195
2028	184
2029	173
2030	162
2031	150
2032	139
2033	128
2034	117
2035	106
2036	95
2037	90
2038	90
2039	90
2040	90
2041	90
2042	90
2043	90
2044	90
2045	90

2046	90
2047	90
2048	90
2049	90
2050	90

1 **SEC. 10005. ALLOCATION OF HYDROFLUOROCARBON CON-**
2 **SUMPTION ALLOWANCES.**

3 (a) *IN GENERAL.*—Not later than 90 days before the
4 beginning of each applicable calendar year, the Adminis-
5 trator shall allocate the portion of the hydrofluorocarbon
6 consumption allowances in the hydrofluorocarbon consump-
7 tion allowance account that is available for allocation for
8 that calendar year.

9 (b) *ELIGIBLE ENTITIES.*—

10 (1) *IN GENERAL.*—The Administrator shall allo-
11 cate hydrofluorocarbon consumption allowances as de-
12 scribed in paragraph (2) to entities that—

13 (A) were hydrofluorocarbon producers or
14 hydrofluorocarbon importers during the period
15 beginning on January 1, 2004, and ending on
16 December 31, 2006; and

17 (B) are hydrofluorocarbon producers or
18 hydrofluorocarbon importers on the date of en-
19 actment of this Act.

20 (2) *DESCRIPTION OF ALLOCATION.*—

21 Hydrofluorocarbon consumption allowances shall be
22 allocated to entities described in paragraph (1) as fol-
23 lows:

(A) *HYDROFLUOROCARBON PRODUCERS.—*

Each hydrofluorocarbon producer shall receive a quantity of hydrofluorocarbon allowances equal to the ratio that—

(i) a value equal to the difference between—

(I) the global warming potential-weighted average of 100 percent of the hydrofluorocarbon and 60 percent of the hydrochlorofluorocarbon produced in the United States, imported into the United States, or acquired in the United States by the hydrofluorocarbon producer during the period beginning on January 1, 2004, and ending on December 31, 2006; and

(II) the global warming potential-weighted average of 100 percent of the hydrofluorocarbon and 60 percent of the hydrochlorofluorocarbon that the producer exported or transferred to another producer of hydrofluorocarbons in the United States during the period described in subclause (I); bears to

1 (ii) a value equal to the difference be-
2 tween—

3 (I) the total global warming po-
4 tential-weighted average of 100 percent
5 of the hydrofluorocarbon and 60 per
6 cent of the hydrochlorofluorocarbon
7 produced in or imported into the
8 United States during the period de-
9 scribed in clause (i)(I); and

10 (II) the global warming potential-
11 weighted average of 100 percent of the
12 hydrofluorocarbon and 60 per cent of
13 the hydrochlorofluorocarbon exported
14 from the United States during that pe-
15 riod.

16 (B) *HYDROFLUOROCARBON IMPORTERS.*—
17 Each hydrofluorocarbon importer shall receive a
18 quantity of hydrofluorocarbon allowances equal
19 to the ratio that—

20 (i) the global warming potential-
21 weighted average of 100 percent of
22 hydrofluorocarbon and 60 percent of
23 hydrochlorofluorocarbon imported by the
24 hydrofluorocarbon importer as a product or
25 contained in equipment during the period

beginning on January 1, 2004, and ending
on December 31, 2006; bears to

(ii) a value equal to the difference between—

(I) the total global warming potential-weighted average of 100 percent of the hydrofluorocarbon and 60 percent of the hydrochlorofluorocarbon produced in and imported into the United States during the period described in clause (i); and

(II) the global warming potential-weighted average of 100 percent of the hydrofluorocarbon and 60 percent of the hydrochlorofluorocarbon exported from the United States during that period.

(c) *WITHHOLDING ALLOWANCES.*—

(1) *IN GENERAL.*—For calendar year 2010 and each calendar year thereafter, the Administrator shall withhold a quantity of hydrofluorocarbon consumption allowances that would otherwise be allocated under subsection (b) for auction at least annually by the Corporation to the entities identified in subsection (b)(1).

1 (2) *AUCTIONS BY CORPORATION.*—*For each ap-*
2 *plicable calendar year, the Administrator shall with-*
3 *hold, and the Corporation shall auction to the entities*
4 *identified in subsection (b)(1), the following quan-*
5 *tities of the hydrofluorocarbon consumption allow-*
6 *ances established under section 10004:*

<i>Calendar year</i>	<i>Percent withheld for auction</i>
<i>2010</i>	<i>5</i>
<i>2011</i>	<i>10</i>
<i>2012</i>	<i>10</i>
<i>2013</i>	<i>10</i>
<i>2014</i>	<i>15</i>
<i>2015</i>	<i>20</i>
<i>2016</i>	<i>25</i>
<i>2017</i>	<i>30</i>
<i>2018</i>	<i>35</i>
<i>2019</i>	<i>40</i>
<i>2020</i>	<i>45</i>
<i>2021</i>	<i>50</i>
<i>2022</i>	<i>55</i>
<i>2023</i>	<i>60</i>
<i>2024</i>	<i>65</i>
<i>2025</i>	<i>70</i>
<i>2026</i>	<i>75</i>
<i>2027</i>	<i>80</i>
<i>2028</i>	<i>85</i>
<i>2029</i>	<i>90</i>
<i>2030</i>	<i>95</i>
<i>2031</i>	<i>100</i>
<i>2032</i>	<i>100</i>
<i>2033</i>	<i>100</i>
<i>2034</i>	<i>100</i>
<i>2035</i>	<i>100</i>
<i>2036</i>	<i>100</i>
<i>2037</i>	<i>100</i>
<i>2038</i>	<i>100</i>
<i>2039</i>	<i>100</i>
<i>2040</i>	<i>100</i>
<i>2041</i>	<i>100</i>
<i>2042</i>	<i>100</i>
<i>2043</i>	<i>100</i>
<i>2044</i>	<i>100</i>
<i>2045</i>	<i>100</i>
<i>2046</i>	<i>100</i>
<i>2047</i>	<i>100</i>
<i>2048</i>	<i>100</i>
<i>2049</i>	<i>100</i>

1 (3) *PROCEEDS.*—*The Corporation shall award*
 2 *the proceeds of the auction to support the following*
 3 *purposes:*

4 (A) *A program to recover and destroy the*
 5 *maximum economically recoverable*
 6 *chlorofluorocarbons, halons, and other substances*
 7 *listed under title VI of the Clean Air Act (42*
 8 *U.S.C. 7671 et seq.) that have significant ozone*
 9 *depletion potential and global warming poten-*
 10 *tial.*

11 (B) *A program of incentives for consumer*
 12 *purchases of refrigeration and cooling equipment*
 13 *that—*

14 (i) *contains refrigerants with no or low*
 15 *global warming potential; and*

16 (ii) *achieves energy efficiency that rep-*
 17 *resents at least a 30 percent improvement,*
 18 *as compared to the more efficient of—*

19 (I) *the applicable Federal energy*
 20 *efficiency standard; and*

21 (II) *the applicable Energy Star*
 22 *rating.*

23 (C) *A program to support the development*
 24 *and deployment of—*

1 (i) hydrofluorocarbons with low global
2 warming potential; and

3 (ii) energy efficient technologies, equip-
4 ment, and products containing or using
5 hydrofluorocarbons.

6 (D) The programs receiving auction pro-
7 ceeds under title IV.

8 **SEC. 10006. COMPLIANCE OBLIGATION.**

9 (a) *SUBMISSION OF ALLOWANCES.*—

10 (1) *IN GENERAL.*—Not later than 90 days after
11 the end of each applicable calendar year, a
12 hydrofluorocarbon producer or hydrofluorocarbon im-
13 porter shall submit to the Administrator a quantity
14 of hydrofluorocarbon consumption allowances, or
15 hydrofluorocarbon destruction allowances awarded
16 pursuant to section 10010, equal to the total number
17 of global warming potential-weighted tons of
18 hydrofluorocarbon consumed in the United States
19 during the preceding calendar year by the
20 hydrofluorocarbon producer or hydrofluorocarbon im-
21 porter, as determined in accordance with paragraphs
22 (2) and (3).

23 (2) *HYDROFLUOROCARBON PRODUCERS.*—For
24 hydrofluorocarbon producers, the quantity of

1 *hydrofluorocarbon consumed shall be a value equal to*
2 *the difference between—*

3 *(A) the global warming potential-weighted*
4 *tons of hydrofluorocarbon produced in the United*
5 *States, imported as a product, or acquired in the*
6 *United States from another hydrofluorocarbon*
7 *producer through sale or other transaction; and*

8 *(B) the global warming potential-weighted*
9 *tons of hydrofluorocarbon the producer exported*
10 *or transferred to another hydrofluorocarbon pro-*
11 *ducer in the United States through sale or other*
12 *transaction.*

13 *(3) HYDROFLUOROCARBON IMPORTERS.—For*
14 *hydrofluorocarbon importers, hydrofluorocarbon con-*
15 *sumed shall be a value equal to the global warming*
16 *potential-weighted tons of hydrofluorocarbon imported*
17 *by the hydrofluorocarbon importer as a product or*
18 *contained in equipment, or acquired in the United*
19 *States from a hydrofluorocarbon producer through*
20 *sale or other transaction.*

21 *(b) RETIREMENT.—Immediately on receipt of a*
22 *hydrofluorocarbon consumption allowance or a*
23 *hydrofluorocarbon destruction allowance under subsection*
24 *(a), the Administrator shall retire the allowance.*

1 (c) *DETERMINATION OF COMPLIANCE.*—Not later than
 2 July 1 of each year, the Administrator shall—

3 (1) *determine whether each hydrofluorocarbon*
 4 *producer and hydrofluorocarbon importer achieved*
 5 *compliance with subsection (a) for the preceding year;*
 6 *and*

7 (2) *so notify each hydrofluorocarbon producer*
 8 *and hydrofluorocarbon importer.*

9 (d) *PENALTIES.*—A hydrofluorocarbon producer or
 10 hydrofluorocarbon importer that is not in compliance with
 11 subsection (a), as determined under subsection (c), shall be
 12 liable for the payment of an excess consumption penalty
 13 as provided in section 1203, except that the deadlines de-
 14 scribed in this title shall be substituted for the deadlines
 15 described in that section.

16 **SEC. 10007. SALE, EXCHANGE, AND OTHER USES OF**
 17 **HYDROFLUOROCARBON CONSUMPTION AL-**
 18 **LOWANCES.**

19 (a) *PERMISSIBLE USES.*—

20 (1) *IN GENERAL.*—A hydrofluorocarbon producer
 21 or hydrofluorocarbon importer may purchase, hold,
 22 sell, exchange, transfer, submit for compliance in ac-
 23 cordance with section 10006, or retire
 24 hydrofluorocarbon consumption allowances or
 25 hydrofluorocarbon destruction allowances.

1 (2) *ACTION ON RETIREMENT.*—If any
2 hydrofluorocarbon producer or hydrofluorocarbon im-
3 porter permanently retires a hydrofluorocarbon con-
4 sumption allowance, the Administrator shall prompt-
5 ly redistribute the allowance to another
6 hydrofluorocarbon producer or hydrofluorocarbon im-
7 porter pursuant to section 10005(b).

8 (b) *PROHIBITIONS.*—

9 (1) *IN GENERAL.*—Hydrofluorocarbon consump-
10 tion allowances or hydrofluorocarbon destruction al-
11 lowances shall not be traded or exchanged with allow-
12 ances associated with any other emission allowance
13 allocation or trading program under this Act.

14 (2) *CERTAIN USES.*—Hydrofluorocarbon con-
15 sumption allowances shall not be used to achieve com-
16 pliance with any other obligation relating to emis-
17 sions of greenhouse gases regulated under any other
18 provision of this Act, and emission allowances estab-
19 lished and allocated under any other provision of this
20 Act shall not be used to achieve compliance with this
21 title.

22 (c) *LIMITATION.*—The privilege of purchasing, holding,
23 selling, exchanging, transferring, and submitting for com-
24 pliance in accordance with section 10006, and retiring
25 hydrofluorocarbon consumption allowances or

1 *hydrofluorocarbon destruction allowances shall be restricted*
 2 *to entities described in section 10005(b)(1).*

3 **SEC. 10008. ALLOWANCE TRANSFER SYSTEM.**

4 (a) *REGULATIONS.*—Not later than 18 months after the
 5 date of enactment of this Act, the Administrator shall pro-
 6 mulgate regulations to carry out the provisions of this title
 7 relating to hydrofluorocarbon consumption allowances and
 8 hydrofluorocarbon destruction allowances, including regula-
 9 tions providing that the transfer of those allowances shall
 10 not be effective until the date on which a written certifi-
 11 cation of the transfer, signed by a responsible official of each
 12 party to the transfer, is received and recorded by the Ad-
 13 ministrator in accordance with those regulations.

14 (b) *TRANSFERS.*—

15 (1) *IN GENERAL.*—The regulations promulgated
 16 under subsection (a) shall permit the transfer of
 17 hydrofluorocarbon consumption allowances prior to
 18 the allocation of the allowances.

19 (2) *DEDUCTION AND ADDITION OF TRANSFERS.*—
 20 A recorded preallocation transfer of hydrofluorocarbon
 21 consumption allowances shall be—

22 (A) *deducted by the Administrator from the*
 23 *number of hydrofluorocarbon consumption allow-*
 24 *ances that would otherwise be allocated to the*
 25 *transferor; and*

1 (B) added to those hydrofluorocarbon con-
 2 sumption allowances allocated to the transferee.

3 (c) *ISSUANCE, RECORDING, AND TRACKING SYSTEM.*—

4 *The regulations promulgated under subsection (a) shall in-*
 5 *clude a system for issuing, recording, and tracking*
 6 *hydrofluorocarbon consumption and hydrofluorocarbon de-*
 7 *struction allowances that shall specify all necessary proce-*
 8 *dures and requirements for an orderly and competitive*
 9 *functioning of the hydrofluorocarbon consumption allow-*
 10 *ance system.*

11 **SEC. 10009. BANKING AND BORROWING.**

12 (a) *BANKING.*—A hydrofluorocarbon producer or
 13 hydrofluorocarbon importer that submits hydrofluorocarbon
 14 consumption allowances or hydrofluorocarbon destruction
 15 allowances to the Administrator to achieve compliance with
 16 section 10006 shall indicate in the identification number
 17 of the hydrofluorocarbon consumption allowance or
 18 hydrofluorocarbon destruction allowance the calendar year
 19 for which the allowance is submitted.

20 (b) *BORROWING OF HYDROFLUOROCARBON CONSUMP-*
 21 *TION ALLOWANCES.*—In accordance with the regulations
 22 promulgated under section 10008(a), and subject to sub-
 23 section (d), a hydrofluorocarbon producer or
 24 hydrofluorocarbon importer may—

1 (1) borrow hydrofluorocarbon consumption al-
2 lowances from the Administrator; and

3 (2) for a calendar year, submit borrowed
4 hydrofluorocarbon consumption allowances to the Ad-
5 ministrator to satisfy not more than 15 percent of the
6 compliance obligation under section 10006.

7 (c) LIMITATION ON BORROWING.—A
8 hydrofluorocarbon consumption allowance borrowed under
9 subsection (b) shall be a hydrofluorocarbon consumption al-
10 lowance established by the Administrator for a specific sub-
11 sequent calendar year under section 10004(g).

12 (d) TERM.—A producer or importer shall not submit,
13 and the Administrator shall not accept, a borrowed
14 hydrofluorocarbon consumption allowance in partial satis-
15 faction of the compliance obligation under section 10006 for
16 any calendar year that is more than 5 years before the cal-
17 endar year included in the identification number of the bor-
18 rowed hydrofluorocarbon consumption allowance.

19 (e) REPAYMENT OF INTEREST.—For any borrowed
20 hydrofluorocarbon consumption allowance submitted in
21 partial satisfaction of the compliance obligation under sec-
22 tion 10006 for a particular calendar year (referred to in
23 this subsection as the “use year”), the number of
24 hydrofluorocarbon consumption allowances or
25 hydrofluorocarbon destruction allowances that the

1 *hydrofluorocarbon producer or hydrofluorocarbon importer*
 2 *is required to submit under section 10006 for the year from*
 3 *which the borrowed hydrofluorocarbon consumption allow-*
 4 *ance was taken (referred to in this subsection as the “source*
 5 *year”)* shall be increased by an amount equal to the product
 6 *obtained by multiplying—*

7 (1) *1.1; and*

8 (2) *the number of calendar years beginning after*
 9 *the use year but before the source year.*

10 **SEC. 10010. HYDROFLUOROCARBON DESTRUCTION ALLOW-**
 11 **ANCES.**

12 (a) *DESTRUCTION OF HYDROFLUOROCARBON.—*

13 (1) *IN GENERAL.—The Administrator shall issue*
 14 *hydrofluorocarbon destruction allowances to any*
 15 *hydrofluorocarbon producer or hydrofluorocarbon im-*
 16 *porter that performs or arranges for recovery and de-*
 17 *struction of hydrofluorocarbon from products or*
 18 *equipment.*

19 (2) *ISSUANCE AND DENOMINATION.—*
 20 *Hydrofluorocarbon destruction allowances shall be*
 21 *issued on a global warming potential-weighted basis,*
 22 *denominated in terms of metric tons of carbon diox-*
 23 *ide.*

24 (3) *LIMITATIONS.—*

1 (A) *BYPRODUCTS.*—No hydrofluorocarbon
 2 destruction allowance shall be issued under this
 3 section for destruction of hydrofluorocarbon pro-
 4 duced as a byproduct in a production process.

5 (B) *CERTAIN PURPOSES.*—No
 6 hydrofluorocarbon destruction allowance shall be
 7 issued under this section for destruction or recy-
 8 cling of hydrofluorocarbon produced for a pur-
 9 pose other than the ultimate sale and use of the
 10 product.

11 (b) *REGULATIONS.*—

12 (1) *REQUIREMENT.*—The regulations promul-
 13 gated under section 10008(a) shall authorize the
 14 issuance of hydrofluorocarbon destruction allowances.

15 (2) *CRITERIA.*—Those regulations shall establish
 16 appropriate criteria for determining—

17 (A) the effectiveness of destruction;

18 (B) the net quantity of global warming po-
 19 tential-weighted hydrofluorocarbon that has been
 20 destroyed; and

21 (C) procedures for verification, registration,
 22 and issuance of hydrofluorocarbon destruction
 23 allowances.

24 (c) *SATISFACTION OF REQUIREMENTS.*—Beginning
 25 with calendar year 2012, a hydrofluorocarbon producer or

1 *hydrofluorocarbon importer may satisfy a portion of the*
2 *hydrofluorocarbon consumption allowance submission re-*
3 *quirement under section 10006 by submitting*
4 *hydrofluorocarbon destruction allowances generated in ac-*
5 *cordance with the regulations promulgated pursuant to sec-*
6 *tion 10008(a).*

7 (d) *OWNERSHIP.—Initial ownership of a*
8 *hydrofluorocarbon destruction allowance shall be held by the*
9 *hydrofluorocarbon producer or hydrofluorocarbon importer*
10 *that performs or arranges for recovery and destruction or*
11 *recycling of hydrofluorocarbon, including*
12 *hydrofluorocarbon from products or equipment containing*
13 *hydrofluorocarbon, unless otherwise specified in a legally*
14 *binding contract or agreement to which the*
15 *hydrofluorocarbon producer or hydrofluorocarbon importer*
16 *is a party.*

17 (e) *TRANSFERABILITY.—A hydrofluorocarbon destruc-*
18 *tion allowance generated pursuant to the regulations pro-*
19 *mulgated pursuant to subsection (b)—*

20 (1) *may be sold, traded, or transferred to any*
21 *hydrofluorocarbon producer or hydrofluorocarbon im-*
22 *porter referred to in section 10005(b); but*

23 (2) *shall not be sold, traded, transferred, or used*
24 *for compliance with any other emission allowance re-*
25 *quirement of this Act or any other law.*

***TITLE XI—AMENDMENTS TO
CLEAN AIR ACT***

***SEC. 11001. NATIONAL RECYCLING AND EMISSION REDUC-
TION PROGRAM.***

*Section 608 of the Clean Air Act (42 U.S.C. 7671g)
is amended—*

*(1) by redesignating subsections (a) through (c)
as subsections (b) through (d), respectively;*

*(2) by inserting before subsection (b) (as so re-
designated) the following:*

*“(a) DEFINITION OF HYDROFLUOROCARBON SUB-
STITUTE.—In this section, the term ‘hydrofluorocarbon sub-
stitute’ means a hydrofluorocarbon—*

*“(1) with a global warming potential of more
than 150; and*

*“(2) that is used in or for types of equipment,
appliances, or processes that previously relied on class
I or class II substances.”;*

(3) in subsection (b) (as so redesignated)—

*(A) in the matter following paragraph (3),
by striking “Such regulations” and inserting the
following:*

“(5) The regulations”;

*(B) by redesignating paragraph (3) as
paragraph (4); and*

1 (C) by inserting after paragraph (2) the fol-
2 lowing:

3 “(3)(A) Not later than 1 year after the date of
4 enactment of the Lieberman-Warner Climate Security
5 Act of 2007, the Administrator shall promulgate regu-
6 lations establishing standards and requirements re-
7 garding the sale or distribution, or offer for sale and
8 distribution in interstate commerce, use, and disposal
9 of hydrofluorocarbon substitutes for class I and class
10 II substances not covered by paragraph (1), including
11 the use, recycling, and disposal of those
12 hydrofluorocarbon substitutes during the mainte-
13 nance, service, repair, or disposal of appliances and
14 industrial process refrigeration equipment.

15 “(B) The standards and requirements established
16 under subparagraph (A) shall take effect not later
17 than 1 year after the date of promulgation of the reg-
18 ulations.”;

19 (4) in subsection (c) (as so redesignated)—

20 (A) by redesignating paragraphs (1)
21 through (3) as subparagraphs (A) through (C),
22 respectively, and indenting the subparagraphs
23 appropriately;

1 (B) by striking the subsection designation
 2 and heading and all that follows through “fol-
 3 lowing—” and inserting the following:

4 “(c) *SAFE DISPOSAL*.—The regulations under sub-
 5 section (b) shall—

6 “(1) establish standards and requirements for the
 7 safe disposal of class I and II substances and
 8 hydrofluorocarbon substitutes for those substances;
 9 and

10 “(2) include each of the following.”;

11 (C) in subparagraph (A) (as redesignated
 12 by subparagraph (A)), by inserting “(or
 13 hydrofluorocarbon substitutes for those sub-
 14 stances)” after “class I or class II substances”;
 15 and

16 (D) in paragraphs (2) and (3), by inserting
 17 “(or a hydrofluorocarbon substitutes for such a
 18 substance)” after “class I or class II substance”
 19 each place it appears.

20 **SEC. 11002. SERVICING OF MOTOR VEHICLE AIR CONDI-**
 21 **TIONERS.**

22 Section 609 of the Clean Air Act (42 U.S.C. 7671h)
 23 is amended—

24 (1) in subsection (b), by adding at the end the
 25 following:

1 “(5) The term ‘hydrofluorocarbon substitute’
2 means a hydrofluorocarbon—

3 “(A) with a global warming potential of
4 more than 150; and

5 “(B) that is used in or for types of equip-
6 ment, appliances, or processes that previously re-
7 lied on class I or class II substances.”; and

8 (2) in subsection (e)—

9 (A) by striking the subsection designation
10 and heading and all that follows through “Effec-
11 tive” and inserting the following:

12 “(e) SMALL CONTAINERS OF CLASS I OR CLASS II
13 SUBSTANCES AND HYDROFLUOROCARBON SUBSTITUTES.—

14 “(1) CLASS I OR CLASS II SUBSTANCES.—Effec-
15 tive beginning”; and

16 (B) by adding at the end the following:

17 “(2) HYDROFLUOROCARBON SUBSTITUTES.—Ef-
18 fective beginning January 1, 2010, it shall be unlaw-
19 ful for any person to sell or distribute, or offer for sale
20 or distribution, in interstate commerce to any person
21 (other than a person performing service for consider-
22 ation on motor vehicle air-conditioning systems in
23 compliance with this section) any hydrofluorocarbon
24 substitute that is—

1 “(A) suitable for use in a motor vehicle air-
2 conditioning system; and

3 “(B) in a container that contains less than
4 20 pounds of the hydrofluorocarbon substitute.”.

5 **SEC. 11003. CARBON DIOXIDE REDUCTION.**

6 (a) *FINDINGS.*—Congress finds that—

7 (1) oil used for transportation contributes sig-
8 nificantly to air pollution, including global warming
9 pollution, water pollution, and other adverse impacts
10 on the environment;

11 (2) to reduce emissions of global warming pollut-
12 ants, the United States should increasingly rely on
13 advanced clean fuels for transportation; and

14 (3) a comparison of life-cycle greenhouse gas
15 emissions of conventional transportation fuels and
16 low-carbon transportation fuels should be based on
17 comparable fuels, such as a comparison of gasoline to
18 gasoline and diesel fuel to diesel fuel.

19 (b) *DEFINITIONS.*—Section 211(o)(1) of the Clean Air
20 Act (42 U.S.C. 7545(o)(1)) is amended—

21 (1) by redesignating subparagraphs (B), (C),
22 and (D) as subparagraphs (J), (G), and (H), respec-
23 tively, and moving those subparagraphs so as to ap-
24 pear in alphabetical order;

(2) by inserting after subparagraph (A) the following:

“(B) *CULTIVATED NOXIOUS PLANT.*—The term ‘cultivated noxious plant’ means a plant that is included on—

“(i) the Federal noxious weed list maintained by the Animal and Plant Health Inspection Service; or

“(ii) any equivalent State list.

“(C) *FUEL EMISSION BASELINE.*—The term ‘fuel emission baseline’ means the average lifecycle greenhouse gas emissions per unit of energy of conventional transportation fuels in commerce in the United States in calendar year 2008, as determined by the Administrator under paragraph (11).

“(D) *FUEL PROVIDER.*—

“(i) *IN GENERAL.*—The term ‘fuel provider’ means an obligated party (as described in section 80.1106 of title 40, Code of Federal Regulations (or a successor regulation)).

“(ii) *INCLUSIONS.*—The term ‘fuel provider’ includes, as the Administrator determines to be appropriate, an individual or

entity that produces, blends, or imports gasoline or any other transportation fuel in commerce in, or into, the United States.

“(E) *GREENHOUSE GAS*.—The term ‘greenhouse gas’ means any of—

“(i) carbon dioxide;

“(ii) methane;

“(iii) nitrous oxide;

“(iv) hydrofluorocarbons;

“(v) perfluorocarbons;

“(vi) sulfur hexafluoride; and

“(vii) any other emission or effect (such as particulate matter or a change in albedo) that the Administrator determines to be a significant factor in global warming as a result of the use of transportation fuel.

“(F) *LIFECYCLE GREENHOUSE GAS EMISSIONS*.—

“(i) *IN GENERAL*.—The term ‘lifecycle greenhouse gas emissions’ means, with respect to a transportation fuel, the aggregate quantity of greenhouse gases emitted per British thermal unit of fuel, as determined by the Administrator, from production through use of the fuel, as calculated to en-

1 *sure that any nonrecurring emission is not*
 2 *amortized over a period of more than 20*
 3 *years to ensure that required improvements*
 4 *in greenhouse gas emissions occur within*
 5 *that period.*

6 “(ii) *INCLUSIONS.—The term ‘lifecycle*
 7 *greenhouse gas emissions’ includes emissions*
 8 *associated with—*

9 “(I) *feedstock production (includ-*
 10 *ing direct and indirect land-use*
 11 *changes) or extraction;*

12 “(II) *feedstock refining;*

13 “(III) *distribution of a fuel; and*

14 “(IV) *use of a fuel.”; and*

15 (3) *by inserting after subparagraph (H) (as re-*
 16 *designated by paragraph (1)) the following:*

17 “(I) *TRANSPORTATION FUEL.—The term*
 18 *‘transportation fuel’ means fuel used to power*
 19 *motor vehicles, nonroad engines, or aircraft.”.*

20 (c) *ADVANCED CLEAN FUEL PROGRAM.—Section*
 21 *211(o) of the Clean Air Act (42 U.S.C. 7545(o)) is amended*
 22 *by adding at the end the following:*

23 “(11) *ADVANCED CLEAN FUEL PERFORMANCE*
 24 *STANDARD.—*

25 “(A) *STANDARD.—*

1 “(i) *IN GENERAL.*—Not later than Jan-
2 uary 1, 2010, the Administrator shall, by
3 regulation—

4 “(I) *establish a methodology for*
5 *use in determining the lifecycle green-*
6 *house gas emissions of all transpor-*
7 *tation fuels in commerce;*

8 “(II) *determine the fuel emission*
9 *baseline;*

10 “(III) *establish a transportation*
11 *fuel certification and marketing proc-*
12 *ess to determine the lifecycle greenhouse*
13 *gas emissions of conventional transpor-*
14 *tation fuels and renewable fuels being*
15 *sold or introduced into commerce in*
16 *the United States that allows—*

17 “(aa) *for a simple certifi-*
18 *cation using default values; and*

19 “(bb) *fuel providers to opt in*
20 *to the use of a standardized cer-*
21 *tification tool that would provide*
22 *verifiable and auditable green-*
23 *house gas ratings for fuels of the*
24 *providers through the use of addi-*
25 *tional, certified data;*

1 “(IV) in accordance with clause
2 (ii), establish a requirement applicable
3 to each fuel provider to reduce the av-
4 erage lifecycle greenhouse gas emissions
5 per unit of energy of the aggregate
6 quantity of transportation fuel pro-
7 duced, blended, or imported by the fuel
8 provider to a level that is, to the max-
9 imum extent practicable—

10 “(aa) by not later than cal-
11 endar year 2011, at least equal to
12 or less than the fuel emission base-
13 line;

14 “(bb) by not later than cal-
15 endar year 2015, 5 percent less
16 than the fuel emission baseline;
17 and

18 “(cc) by not later than cal-
19 endar year 2020, 10 percent less
20 than the fuel emission baseline;
21 and

22 “(V) permit alternative reliable
23 estimation methods to be used for the
24 purpose of this clause during the first

1 5 years that the requirement described
2 in subclause (IV) is in effect.

3 “(ii) *AIR QUALITY IMPACTS.*—For the
4 purpose of this subparagraph, in the case of
5 any air quality-related adverse lifecycle im-
6 pact resulting from emissions from motor
7 vehicles using renewable fuel, the Adminis-
8 trator shall ensure, by regulation promul-
9 gated under this title, that gasoline con-
10 taining renewable fuel does not result in—

11 “(I) average per-gallon motor ve-
12 hicle emissions (measured on a mass
13 basis) of air pollutants in excess of
14 those emissions attributable to gasoline
15 sold or introduced into commerce in
16 the United States in calendar year
17 2007; or

18 “(II) a violation of any motor ve-
19 hicle emission or fuel content limita-
20 tion under any other provision of this
21 Act.

22 “(iii) *CALENDAR YEAR 2025 AND*
23 *THEREAFTER.*—For calendar year 2025,
24 and each fifth calendar year thereafter, the
25 Administrator, in consultation with the

1 *Secretary of Agriculture and the Secretary*
2 *of Energy, shall revise the applicable per-*
3 *formance standard to require that each fuel*
4 *provider shall additionally reduce, to the*
5 *maximum extent practicable, the average*
6 *lifecycle greenhouse gas emissions per unit*
7 *of energy of the aggregate quantity of trans-*
8 *portation fuel introduced by the fuel pro-*
9 *vider into commerce in the United States.*

10 “(iv) *REVISION OF REGULATIONS.—In*
11 *accordance with the purposes of the*
12 *Lieberman-Warner Climate Security Act of*
13 *2007, the Administrator may, as appro-*
14 *priate, revise the regulations promulgated*
15 *under clause (i) as necessary to reflect or re-*
16 *spond to changes in the transportation fuel*
17 *market or other relevant circumstances.*

18 “(v) *METHOD OF CALCULATION.—In*
19 *calculating the lifecycle greenhouse gas*
20 *emissions of hydrogen or electricity (when*
21 *used as a transportation fuel) pursuant to*
22 *clause (i)(I), the Administrator shall—*

23 *“(I) include emissions resulting*
24 *from the production of the hydrogen or*
25 *electricity; and*

1 “(II) consider to be equivalent to
2 the energy delivered by 1 gallon of eth-
3 anol the energy delivered by—

4 “(aa) 6.4 kilowatt-hours of
5 electricity;

6 “(bb) 132 standard cubic feet
7 of hydrogen; or

8 “(cc) 1.25 gallons of liquid
9 hydrogen.

10 “(vi) *BEST AVAILABLE SCIENCE.*—In
11 carrying out this paragraph, the Adminis-
12 trator shall use the best available scientific
13 and technical information to determine the
14 lifecycle greenhouse gas emissions of trans-
15 portation fuels derived from—

16 “(I) planted crops and crop res-
17 idue produced and harvested from ag-
18 ricultural land that—

19 “(aa) has been cleared and, if
20 the land was previously wetland,
21 drained before the date of enact-
22 ment of this paragraph, and that
23 is actively managed or fallow and
24 nonforested; and

1 “(bb) is in compliance with a
2 conservation plan that meets the
3 standards, guidelines, and restric-
4 tions under subtitles B and C of
5 chapter 1 of subtitle D of title XII
6 of the Food Security Act of 1985
7 (16 U.S.C. 3831 et seq.);

8 “(II) planted trees and tree res-
9 idue from actively-managed tree plan-
10 tations on non-Federal land that has
11 been cleared and, if the land was pre-
12 viously wetland, drained before the
13 date of enactment of this paragraph;

14 “(III) animal waste material, and
15 animal byproducts;

16 “(IV) slash and pre-commercial
17 thinnings from non-Federal forestland
18 other than—

19 “(aa) old-growth forest or
20 late successional forest; and

21 “(bb) ecological communities
22 with a global or State ranking of
23 critically imperiled, imperiled, or
24 rare pursuant to a State natural
25 heritage program;

1 “(V) biomass obtained from the
2 immediate vicinity of buildings and
3 other areas regularly occupied by indi-
4 viduals, or of public infrastructure,
5 that is at risk from wildfire;

6 “(VI) algae;

7 “(VII) separated food waste or
8 yard waste;

9 “(VIII) electricity, including the
10 entire lifecycle of the fuel;

11 “(IX) 1 or more fossil fuels, in-
12 cluding the entire lifecycle of the fuels;
13 and

14 “(X) hydrogen, including the en-
15 tire lifecycle of the fuel.

16 “(vii) *EQUIVALENT EMISSIONS.*—In
17 carrying out this paragraph, the Adminis-
18 trator shall consider transportation fuel de-
19 rived from cultivated noxious plants, and
20 transportation fuel derived from biomass
21 sources other than those sources described in
22 clause (vi), to have emissions equivalent to
23 the greater of—

24 “(I) the lifecycle greenhouse gas
25 emissions; or

1 “(II) *the fuel emission baseline.*

2 “(B) *ELECTION TO PARTICIPATE.—An elec-*
 3 *tricity provider may elect to participate in the*
 4 *program under this section if the electricity pro-*
 5 *vider provides and separately tracks electricity*
 6 *for transportation through a meter that—*

7 “(i) *measures the electricity used for*
 8 *transportation separately from electricity*
 9 *used for other purposes; and*

10 “(ii) *allows for load management and*
 11 *time-of-use rates.*

12 “(C) *CREDITS.—*

13 “(i) *IN GENERAL.—The regulations*
 14 *promulgated to carry out this paragraph*
 15 *shall permit fuel providers to receive credits*
 16 *for achieving, during a calendar year,*
 17 *greater reductions in lifecycle greenhouse*
 18 *gas emissions of the fuel provided, blended,*
 19 *or imported by the fuel provider than are*
 20 *required under subparagraph (A)(i)(IV).*

21 “(ii) *METHOD OF CALCULATION.—The*
 22 *number of credits received by a fuel pro-*
 23 *vider as described clause (i) for a calendar*
 24 *year shall be calculated by multiplying—*

1 “(I) the aggregate quantity of fuel
 2 produced, distributed, or imported by
 3 the fuel provider in the calendar year;
 4 and

5 “(II) the difference between—

6 “(aa) the lifecycle greenhouse
 7 gas emissions of that quantity of
 8 fuel; and

9 “(bb) the maximum lifecycle
 10 greenhouse gas emissions of that
 11 quantity of fuel permitted for the
 12 calendar year under subpara-
 13 graph (A)(i)(IV).

14 “(D) COMPLIANCE.—

15 “(i) IN GENERAL.—Each fuel provider
 16 subject to this paragraph shall demonstrate
 17 compliance with this paragraph, including,
 18 as necessary, through the use of credits
 19 banked or purchased.

20 “(ii) NO LIMITATION ON TRADING OR
 21 BANKING.—There shall be no limit on the
 22 ability of any fuel provider to trade or bank
 23 credits pursuant to this subparagraph.

24 “(iii) USE OF BANKED CREDITS.—A
 25 fuel provider may use banked credits under

1 *this subparagraph with no discount or other*
2 *adjustment to the credits.*

3 “(iv) *BORROWING.—A fuel provider*
4 *may not borrow credits from future years*
5 *for use under this subparagraph.*

6 “(v) *TYPES OF CREDITS.—To encour-*
7 *age innovation in transportation fuels—*

8 “(I) *only credits created in the*
9 *production of transportation fuels may*
10 *be used for the purpose of compliance*
11 *described in clause (i); and*

12 “(II) *credits created by or in*
13 *other sectors, such as manufacturing,*
14 *may not be used for that purpose.*

15 “(E) *NO EFFECT ON STATE AUTHORITY OR*
16 *MORE STRINGENT REQUIREMENTS.—Nothing in*
17 *this subsection—*

18 “(i) *affects the authority of a State to*
19 *establish, or to maintain in effect, any*
20 *transportation fuel performance standard or*
21 *other similar standard that is more strin-*
22 *gent than a standard established under this*
23 *paragraph; or*

1 “(ii) supercedes or otherwise affects
 2 any more stringent requirement under any
 3 other provision of this Act.”.

4 (d) *WATER QUALITY PROTECTION*.—Section 211(c)(1)
 5 of the Clean Air Act (42 U.S.C. 7545(c)(1)) is amended—

6 (1) by striking “nonroad vehicle (A) if in the
 7 judgment of the Administrator” and inserting the fol-
 8 lowing: “nonroad vehicle—

9 “(A) if, in the judgment of the Adminis-
 10 trator, any fuel or fuel additive or”;

11 (2) by striking “, or (B) if” and inserting the
 12 following: “; or

13 “(B) if”; and

14 (3) in subparagraph (A), by striking “air pollu-
 15 tion which” and inserting “air pollution or water
 16 pollution (including any degradation in the quality
 17 of groundwater) that”.

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110TH CONGRESS
2^D Session

S. 2191

[Report No. 110-337]

A BILL

To direct the Administrator of the Environmental Protection Agency to establish a program to decrease emissions of greenhouse gases, and for other purposes.

May 20, 2008

Reported with an amendment